

Article. Legislative Assembly
Sessional paper.

119
II

SESSIONAL PAPERS

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VOL. XLV.—PART XII.

SECOND SESSION

OF THE

THIRTEENTH LEGISLATURE

OF THE

PROVINCE OF ONTARIO

SESSION 1913

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ARRANGED ALPHABETICALLY.

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- No. 1 Public Accounts of the Province for the year ending 31st October, 1912. Presented to the Legislature, 26th February, 1913. *Printed.*
- No. 2 Estimates—Supplementary, for the service of the Province for the year ending 31st October, 1913. Presented to the Legislature, 28th February and 9th April, 1913. *Printed.* Estimates for the year ending 31st October, 1914. Presented to the Legislature, 14th April, 1913. *Printed.*

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- No. 3 Report of the Department of Lands, Forests and Mines, for the year 1912. Presented to the Legislature, 21st April, 1913. *Printed.*
- No. 4 Report of the Bureau of Mines for the year 1912. Presented to the Legislature, 28th March, 1913. *Printed.**
- No. 5 Report of the Inspector of Division Courts for the year 1912. Presented to the Legislature, 24th February, 1913. *Printed.*
- No. 6 Report of the Inspector of Legal Offices for the year 1912. Presented to the Legislature, 25th March, 1913. *Printed.*

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- No. 7 Report of the Inspector of Registry Offices for the year 1912. Presented to the Legislature, 21st April, 1913. *Printed.*
- No. 8 Report of the Provincial Municipal Auditor for the year 1912. Presented to the Legislature, 1st April, 1913. *Printed.*
- No. 9 Report of the Commissioners for the Queen Victoria Niagara Falls Park, for the year 1912. Presented to the Legislature, 25th March, 1913. *Printed.*
- No. 10 Report of the Department of Insurance for the year 1912. Presented to the Legislature, 13th March, 1913. *Printed.*
- No.10 (a) Report of the Registrar of Friendly Societies for the year 1912. Presented to the Legislature, 13th March, 1913. *Printed.*

*See Part V. for the Report of 1912, printing of which was delayed.

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- No. 11 Loan Corporations Statements made by Building Societies, Loaning, Land and Trust Companies for the year 1912. Presented to the Legislature, 28th February, 1913. *Printed.*
- No. 12 Report of the Department of Public Works for the year 1912. Presented to the Legislature, 25th February, 1913.
- No. 13 Report of the Department of Game and Fisheries for the year 1912. Presented to the Legislature, 21st February, 1913. *Printed.*

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- No. 14 Report upon Highway Improvement for the year 1912. Presented to the Legislature, 21st February, 1913. *Printed.*
- No. 15 Report of the Bureau of Labour for the year 1912. Presented to the Legislature, 19th March, 1913. *Printed.*

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- No. 16 Report of the Department of Education for the year 1912. Presented to the Legislature, 4th March, 1913. *Printed.*
- No. 17 Report of Board of Governors of University of Toronto for the year ending 30th June, 1912. Presented to the Legislature, 13th February, 1913. *Printed.*

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- No. 18 Report of the Secretary and Registrar of the Province for the year 1912. Presented to the Legislature, 3rd April, 1913. *Printed.*
- No. 19 Report of Registrar General upon Births, Marriages and Deaths, for the year 1912. Presented to the Legislature, 4th March, 1913. *Printed.*
- No. 20 Report of the Board of Health for the year 1912. Presented to the Legislature, 15th April, 1913. *Printed.*
- No. 21 Report upon the Hospitals for the Insane for the year 1912. Presented to the Legislature, 3rd April, 1913. *Printed.*
- No. 22 Report upon the Hospitals for Idiots, Orillia, and Epileptics, Woodstock, for the year 1912. Presented to the Legislature, 3rd April, 1913. *Printed.*

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- No. 23 Report upon the Feeble-Minded for the year 1912. Presented to the Legislature, 3rd April, 1913. *Printed.*
- No. 24 Report upon the Hospitals and Charities for the year 1912. Presented to the Legislature, 9th April, 1913. *Printed.*
- No. 25 Report upon the Prisons and Reformatories for the year 1912. Presented to the Legislature, 3rd April, 1913. *Printed.*
- No. 26 Report upon the Neglected and Dependent Children for the year 1912. Presented to the Legislature, 25th March, 1913. *Printed.*
- No. 27 Report upon the operation of the Liquor License Acts for the year 1912. Presented to the Legislature, 28th February, 1913. *Printed.*

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- No. 28 Report of the Department of Agriculture for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 29 Report of the Agricultural College and Experimental Farm for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 30 Report of the Veterinary College for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 31 Report of the Agricultural and Experimental Union for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 32 Report of the Fruit Growers Association for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 33 Return to an Order of the House of the 5th March, 1913, for a Return of copies of all correspondence between the Government, or any member thereof, and Dr. F. B. Fernow, regarding Reforestry work, or any class of work on behalf of the Government of Ontario, in any capacity. Presented to the Legislature, 22nd April, 1913. *Mr. Gamey. Not printed.*
- No. 34 Report of the Vegetable Growers' Association for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 35 Report of the Corn Growers' Association for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*

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- No. 36 Report of the Entomological Society for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 37 Report of the Bee-keepers' Association for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 38 Report of the Dairymen's Association for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 39 Report of the Live Stock Association for the year 1912. Presented to the Legislature 20th February, 1913. *Printed.*
- No. 40 Report of the Farmer's Institutes for the year 1912. Presented to the Legislature, 20th February, 1913. *Printed.*
- No. 41 Report of the Women's Institutes for the year 1912. Presented to the Legislature, 20th February, 1913. *Printed.*

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- No. 42 Report of the Horticultural Societies for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 43 Report of the Agricultural Societies for the year 1912. Presented to the Legislature, 20th February, 1912. *Printed.*
- No. 44 Report of the Bureau of Industries for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*
- No. 45 Report of the Inspector of Factories for the year 1912. Presented to the Legislature, 17th April, 1913. *Printed.*

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- No. 46 Report of the Temiskaming and Northern Ontario Railway Commission for the year 1912. Presented to the Legislature, 13th March, 1913. *Printed.*
- No. 47 Report of the Hydro-Electric Power Commission for the year 1912. Presented to the Legislature, 6th March, 1913. *Printed.*
- No. 48 Report of the Ontario Railway and Municipal Board, for the year 1912. Presented to the Legislature, 15th April, 1913. *Printed.*

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- No. 49 Return from the Records of the Elections held on the 28th October, 5th November, 1912, and 19th March, 1913. Presented to the Legislature, 4th February and 26th March, 1913. *Printed.*
- No. 50 Report of the Archivist for the year 1912. Presented to the Legislature, 21st April, 1913. *Printed.*

- No. 51 Report of Librarian upon the State of the Library for the year 1912. Presented to the Legislature, 5th February, 1913. *Not printed.*
- No. 52 Return to an Order of the House of the 11th April, 1912, for a Return shewing: 1. The quantity of pine timber cut at or near mileage 81 on the Timiskaming and Northern Ontario Railway during each of the seasons 1907-1908, 1908-1909, 1909-1910, 1910-1911, by the North Land Mining Company, Limited. 2. The price at which the said pine timber was sold to the said Company in each of the said seasons. 3. The names of the persons by whom the pine cut in each of the said seasons by the said Company was measured for the Government. 4. The names of the original incorporators of the said Company and the names of its shareholders and directors in each of the years 1907, 1908, 1910, 1911 and 1912. Presented to the House 13th February, 1913. *Mr. Mageau. Not printed.*
- No. 53 Return to an Order of the House of the 9th April, 1912, for a Return of Copies of all correspondence, official or unofficial, reports and written memoranda of every kind passing between the Government or any Minister or officer thereof and any other person or corporation with respect to:—(a) The granting of a permit for a tug owned by the Dominion Fish Company to fish on what is known as "the Lizard Island Preserve," during the season 1911, and copy of such permit. (b) The granting of a permit or permits to any other body or person or corporation to fish upon the said Lizard Island Preserve during the season 1911, together with copies of such permits. (c) The granting of permits to move the tugs of the Dominion Fish Company from one fishing ground to another, in either of the years 1909, 1910, 1911, with copies of such permits. (d) The issue of permits permitting the removal of tugs or other fishing boats owned by persons or corporations other than the Dominion Fish Company from one fishing ground to another during the seasons 1909, 1910, 1911, with copies of such permits. (e) The issue of a license to a Canadian-owned tug or boat to fish in waters of the Lizard Island Preserve in either of the seasons of 1911 or 1912, with copy of such license, if any. (f) The issue of licenses or permits to use 5-lb. or 6-lb. nets on the said Lizard Island Preserve during the seasons of 1911 and 1912, with copies of such licenses or permits. Presented to the Legislature, 13th February, 1913. *Mr. Mageau. Not printed.*
- No. 54 Return to an Address to His Honour the Lieutenant-Governor of the sixth day of March, 1911, praying that he will cause to be laid before this House, a Return of copies of all correspondence between the Province of Ontario and the Dominion of Canada, regarding the establishment of Fish Hatcheries in Ontario. Presented to the Legislature, 13th February, 1913. *Mr. Gamey. Not printed.*

- No. 55 Copies of Orders in Council and Regulations to be laid before the Legislative Assembly as required by section 27 of the Department of Education Act. Presented to the Legislature, 13th February, 1913. *Not printed.*
- No. 56 Copy of an Order in Council approved by His Honour the Lieutenant-Governor the thirtieth day of April, A.D. 1912, pursuant to provisions of Subsection 3 of Section 78 of the Surrogate Courts Act, Chapter 31, 10 Edward VII., that there be paid to His Honour C. F. Sutherland, of the County Court of the County of Grey, from year to year during his tenure of Office, the Surplus Surrogate Fees over and above the amount payable by Statute to the Surrogate Judge of the said County of Grey, provided, however, that the sum paid out of the said Surplus Surrogate Fees shall not in any year exceed the sum of six hundred and sixty-six dollars (\$666.00). Presented to the Legislature, 14th February, 1913. *Not printed.*
- No. 57 Return to an Order of the House of the 11th April, 1912, for a Return of copies of (1) All correspondence passing between the Government or any Minister or official thereof or any commission under the Government or any official thereof and any other person or corporation with respect to the development of the Smoky Falls Water Power on the Sturgeon River for the benefit of the Town of North Bay. Presented to the Legislature, 17th February, 1913. *Mr. Mageau. Not printed.*
- No. 58 Return to an Order of the House of the 17th day of February, 1913, for a Return shewing whether the Prime Minister or any person on his behalf received a telegram purporting to be from one Rowlandson of Elk Lake between the 1st and 11th days of December, 1911, addressed to the Prime Minister with reference to the building of the Elk Lake Branch of the Timiskaming and Northern Ontario Railway. 2. If such telegram was received, the contents of such telegram. 3. If such telegram was received, did the Prime Minister or any person in his name or with his authority or knowledge or on his behalf send a telegram in reply to the said Rowlandson. 4. If so, the date of such telegram and the contents thereof. Presented to the Legislature, 17th February, 1913. *Mr. Elliott. Not printed.*
- No. 59 Return to an Order of the House of 2nd April, 1912, for a Return of copies of all correspondence between any person or persons whatever and the Government of Ontario, or any Minister or Official thereof, with respect to the water power on the Montreal River, known as the "Notch" and all applications for a lease of the said water power and any and all leases issued, assignments of any such leases and all other papers and documents in any way relating to the said "Notch" water power or to the Montreal-Cobalt Power Company, Limited, since the 1st day of January, 1905. Presented to the Legislature, 18th February, 1913. *Mr. Mageau. Not printed.*

- No. 60 Return to an Order of the House of the 28th March, 1912, for a Return of Copies of (1) All correspondence between the Department of the Attorney-General or any official thereof and any other person whatsoever with respect to certain charges against M. Houston, one time Police Magistrate for the City of Chatham. (2) All charges against the said M. Houston. (3) All Commissions issued, evidence taken and documents submitted in connection with the said charges and the dismissal of the said M. Houston from his office as Police Magistrate. Presented to the Legislature, 18th February, 1913. *Mr. Richardson. Not printed.*
- No. 61 Return to an Order of the House of the 20th March, 1912, for a Return of Copies of: 1. All correspondence, reports, estimates or returns of any kind and from any source respecting the quantity of timber cut upon the Munn limits in the seasons of 1909-10, 1910-11 and 1911-12. 2. The amount received by the Government of Ontario for timber dues, stumpage, rentals, or otherwise howsoever in connection with the said limits in each of the financial years 1909-10-11 with full details. 3. The Annual Return made to the Department of the Provincial Secretary by the Munn Lumber Company, Limited, for the years 1909, 1910 and 1911. Presented to the Legislature, 21st February, 1913. *Mr. Sinclair. Not printed.*
- No. 62 Return to an Order of the House of the 11th March, 1912, for a Return showing:—1. (a) The number of Forest Rangers and Timber Cullers employed by the Government of Ontario in the seasons of 1903-4 and 1904-5. (b) The number of feet of timber measured in each season. (c) The amount of money paid in each of the said seasons to (1) Forest Rangers, (2) Timber Cullers. 2. Also showing all the information hereinbefore asked for with respect to the seasons 1909-10 and 1910-11. Presented to the Legislature, 21st February, 1913. *Mr. Mageau, Not printed.*
- No. 63 Return to an Order of the House of the 17th February, 1913, for a Return of a Copy of the Report made by Mr. E. Saunders, appointed to investigate into certain charges made by Michael Farr of an attempt made to procure money from him in consideration of a license being renewed for the Union Hotel in the Town of Goderich, together with copies of all correspondence which passed between the Government and any person in reference to the said license or the said investigation, the evidence taken by Mr. Saunders and generally all papers, letters, memoranda or papers of any kind and description relating to the said license, including all papers, and correspondence relative to the refusal of a renewal of such license. Presented to the Legislature, 21st February, 1913. *Mr. Proudfoot. Not printed.*

- No. 64 Return to an Order of the House of thirteenth day of April, 1912, for a Return of:—(a) All memorials, resolutions, letters or other written memoranda received by the Government or any Minister or official thereof since the 1st day of January, 1910, from any individual, public officer or organization with respect to the increase of the number of Judges of the Supreme Court of Judicature for Ontario or with respect to the changes in the constitution of the Supreme Court of Judicature for Ontario provided for in sections 1 to 19 inclusive, of The Law Reform Act, 1909. (b) Copies of all letters or written memoranda from the Government or any Minister or official thereof to any individual, public officer, or organization with respect to the said two subject matters, or either of them, since the said date. Presented to the Legislature, 26th February, 1913. *Mr. Elliott. Not printed.*
- No. 65 Statement of the Auditor made pursuant to the provisions of Section 13, subsection 2, of the Audit Act as amended by Section 6, of Chapter 10, 9 Edward VII. Presented to the Legislature, 28th February, 1913. *Printed.*
- No. 66 Return to an Order of the House of the 14th March, 1912, for a Return showing:—How many male patients have been admitted to each of the Provincial Institutions for the Insane, Feeble Minded, and Epileptics during the three years beginning Jan. 1st, 1909, and ending Dec. 31st, 1911. How many female patients were admitted to these institutions during the same years. How many male patients were discharged from each of these institutions during the same three years. How many female patients were discharged from each of these institutions during these years. Of these male patients discharged: 1st. How many were discharged recovered; 2nd. How many were discharged improved; 3rd. How many were discharged unimproved. Of the female patients discharged: 1st. How many were discharged recovered; 2nd. How many were discharged improved; 3rd. How many were discharged unimproved. Of the female patients discharged how many were under 45 years of age. Of the patients admitted to each of these institutions during the years 1909, 1910 and 1911 how many were admitted for the first time. How many were admitted for the second time. How many were admitted for the third time. How many had been admitted more than three times. In how many of these cases admitted during these years is there evidence that the patients have become the father or mother of children after the first attack of insanity. In how many of these patients is there a history of insanity, epilepsy or imbecility in the father, mother, brother or sister of the patient. In how many of these patients is there a history of insanity, epilepsy or imbecility in the children of the patients. How many patients are in each of these institutions who have had a father,

mother, son or daughter in an asylum at some time. Presented to the Legislature, 28th February, 1913. *Mr. Godfrey. Not printed.*

- No. 67 Return to an Order of the House of the 19th February, 1913, for a Return showing:—1. The number of meetings of the Advisory Council of Education held in each of the years 1909, 1910, 1911 and 1912. 2. The total number of meetings attended by each of the different members of this Council during each of the said years. 3. The total number of votes received by each candidate for representative of the public school teachers and for each candidate for representative of the high school teachers for each of the said years. Presented to the Legislature 28th February, 1913. *Mr. Marshall. Not printed.*
- No. 68 Orders in Council issued under the provisions of Section 10 of Cap. 2, 2 George V. Presented to the Legislature, 3rd March, 1913. *Not printed.*
- No. 69 Return to an Order of the House of the 3rd March, 1913, for a Return showing:—1. Copies of the Culler's report made by the Fort Frances Lumber Company for the logging seasons of 1909-10, 1910-11, 1911-12. Presented to the Legislature, 4th March, 1913. *Mr. Kohler. Not printed.*
- No. 70 The Mining Industry in that part of Ontario served by the Timiskaming and Northern Ontario Railway for the year 1913. Presented to the Legislature, 11th March, 1913. *Printed.*
- No. 71 Report of T. G. McMillan, covering investigations at James' Bay during 1912. Presented to the Legislature, 11th March, 1913. *Printed.*
- No. 72 Report on the increase of the food supply for Ducks in Northern Ontario by G. R. Mickle, with description of edible plants by R. B. Thompson. Presented to the Legislature, 11th March, 1913. *Printed.*
- No. 73 A Return to an Order of the House of the 26th February, 1913, for a Return showing: 1. All lands (other than the Railway's right of way) owned by the Timiskaming and Northern Ontario Railway Commission situate in the various municipalities of the Province, stating the municipality in which the land is situate, the area and estimated value of the land, and showing which are mineral lands, agricultural lands and town lots. 2. All lands (other than the Railway's right of way) owned by the Timiskaming and Northern Ontario Railway Commission situate in any unorganized territory within the Province, stating the unorganized territory in which the land is situate, the area and estimated value of the land, and showing which are mineral lands, agricultural lands and town lots. Presented to the Legislature, 10th March, 1913. *Mr. Atkinson. Not Printed.*

- No. 74 Return to an Order of the House of the 3rd March, 1913, for a Return showing:—1. How much the Government has spent on private detective work in each of the years 1910, 1911 and 1912. 2. How much of the amount mentioned in the first paragraph hereof, has been spent by the Government in connection with the administration of the Liquor License Laws. 3. What amount was recovered in fines and penalties under the Liquor License Act, in each of the years 1910, 1911 and 1912. Presented to the Legislature, 12th March, 1913. *Mr. McQueen. Not printed.*
- No. 75 Return to an Order of the House of the 11th April, 1912, for a Return of copies of all correspondence between the Government and any Minister or Official thereof with respect to the character, efficiency or teaching in the Schools in Simcoe, Stormont, Prescott, Russell and Glengarry Counties since January 1st, 1910. Of all orders, regulations, provisions or other means authorized or directed by the Government or any member or official thereof, to meet or in consequence of any of the said memorials, resolutions, affidavits, protests, charges or complaints. The schools in the said Counties from which the Provincial grant was withheld in the years 1910 and 1911 respectively. The reports or other evidence upon which grants were paid in 1911 to any schools in the said counties from which grants had been withheld in 1910. Presented to the Legislature, 14th March, 1913. *Mr. Elliott. Not printed.*
- No. 76 Return to an Order of the House of the 14th March, 1913, for a Return of copies of: 1. All complaints from any other person or persons received in the years 1911 and 1912 by the Government or any Member of the Government regarding the conduct of Police Magistrate Dempsey. 2. All prosecutions instituted or carried on before Superintendent Rogers as a special magistrate within the Town of Cochrane during the years 1911 and 1912. 3. All protests filed with the Government, with the Prime Minister, the Provincial Secretary, Attorney-General or any other Member of the Government by the corporation of the Town of Cochrane, the Board of Trade or the citizens of the Town of Cochrane against the action of Superintendent Rogers in exercising or assuming to exercise jurisdiction within the Town of Cochrane as a special magistrate. Presented to the Legislature, 14th March, 1913. *Mr. Sinclair. Not printed.*
- No. 77 Return to an Order of the House of the 26th February, 1913, for a Return of copies of all correspondence between the Department of Education, the Minister of Education himself, and the Board of Trustees of the Schools of the Village of Plantagenet since the 1st day of March, 1905, up to the 1st day of December, 1908, regarding the Teaching of French. Presented to the Legislature, 17th March, 1913. *Mr. Evanturel. Not printed.*

- No. 78 Return to an Order of the House of the 24th February, 1913, for a Return of (1) Copies of the letters referred to on the last page of the brief furnished to the Attorney-General by the Crown Counsel in the proceedings against the Stamped Ware Association, showing offences under the different subsections of Section 520 of the Criminal Code, each incriminating letter being marked *a, b, c, or d*, as it discloses an offence against a subsection. The said brief forms part of Return 82, Session 1912. (2) Copies of all correspondence between the Crown Counsel and the Government with reference to prosecution of the said combine and all correspondence containing instructions, if any, from the Government not to prosecute. Presented to the Legislature, 17th March, 1913. *Mr. Elliott. Not printed.*
- No. 79 Return to an Order of the House of the 14th March, 1913, for a Return of: (1) A copy of the information, depositions and proceedings before the Police Magistrate of Toronto (including the warrant of commitment) with respect to the members of the Tack Combine who were committed for trial by the Police Magistrate of the City of Toronto. (2) Copies of all correspondence passing between the Attorney-General or any one on his behalf or on behalf of the Government and Mr. Du Vernet, K.C., Crown Counsel, or anyone on his behalf with reference to the trial of the members of the Tack Combine. Presented to the Legislature, 17th March, 1913. *Mr. Rowell. Not printed.*
- No. 80 Report on Road Construction under 2 George V. Cap. 2, being Consolidated Revenue Act of Ontario. Presented to the Legislature, 19th March, 1913. *Printed.*
- No. 81 Return to an Order of the House of the 12th March, 1913, for a Return showing:—Copies of all correspondence between the Chairman or any other member of the T. & N. O. Railway Commission or any other person on their behalf and any official or employee of the T. & N. O. Railway at North Bay relative to the appointment of W. I. Johnston to his present position with the T. & N. O. Railway at North Bay, Ont. Presented to the Legislature, 19th March, 1913. *Mr. Munro. Not printed.*
- No. 82 Report of S. Price *re* limitation of hours of Labour of underground workmen in the Mines of Ontario. Presented to the Legislature, 20th March, 1913. *Printed.*
- No. 83 Return to an Order of the House of the 7th March, 1913, for a Return showing:—1. Copy of the information laid against one Stone before the Police Magistrate at Collingwood, in January, 1913, for an alleged violation of the Liquor License Act. 2. Copy of the judgment of the magistrate. Presented to the Legislature, 28th March, 1913. *Mr. Anderson (Bruce.) Not printed.*

- No. 84 Return to an Order of the House of the 26th February, 1913, for a Return showing:—1. All expenses incurred by the Hydro-Electric Power Commission, or the Government, or by any person or persons on their behalf, in connection with the passing of the Hydro-Electric By-law at North Bay in January, 1913, or for the purpose of procuring the passage of such By-law, or otherwise connected with the submission of such By-law to the electors of North Bay. 2. The names of all persons employed by the Hydro-Electric Power Commission who were in or visited the Town of North Bay during the months of December or January last, and the purposes for which they were employed in the Town of North Bay, and the amounts that were paid to each of them for their services there. 3. Copies of all correspondence between the Hydro-Electric Power Commission, or the Government, or any person or persons on behalf of the Hydro-Electric Power Commission, or the Government, and the Council of the Town of North Bay, or any person on behalf of the said Council, relating to the Hydro-Electric By-law. Presented to the Legislature, 1st April, 1913. *Mr. Mageau. Not printed.*
- No. 85 Further interim Report of the Commissioner on the subject of Compensation to Workmen for Injuries sustained in the course of their employment, together with draft Bill, embodying the Commissioner's conclusions. Presented to the Legislature, 2nd April, 1913. *Printed.*
- No. 86 A preliminary study by H. G. Acres, of the Hydro-Electric Power Commission, dealing with the possibility of improving the general regimen and local flow characteristics of the Grand River, by means of Storage and Training Works. Presented to the Legislature, 3rd April, 1913. *Not printed.*
- No. 87 Return to an Order of the House for a Return showing:—Copies of all correspondence passing between the Department of Education or the Minister or any official thereof and J. Russell McGregor of Gore Bay (President of the Manitoulin Conservative Association), the Public School Board of Gore Bay, the Public School Inspector in Manitoulin or any other person concerning the granting of a temporary teacher's certificate to one Jean McGregor. 2. A copy of the temporary certificate or temporary certificates granted to the said Jean McGregor. 3. Copy of the Departmental Regulations under which the Minister acted in granting the temporary certificate to the said Jean McGregor. 4. Copies of all advertisements (stating the dates of the same), inserted in any paper or papers prior to the granting of such temporary certificate to Jean McGregor, as required by subsection 2 of section 2 of Circular 301½, dated 7th May, 1912, issued by the Department of Education. 5. The evidence (if any) which the Minister had before him at the time such tem-

porary certificate was granted, that the school board had "taken due measures to obtain a teacher with the prescribed grade of certificate," before the Inspector made his recommendation that Jean McGregor should be granted a temporary certificate. Presented to the Legislature, 4th April, 1913. *Mr. Marshall. Not printed.*

- No. 88 A return to an Order of the House of the 21st February, 1913, for a Return showing:—1. All petitions, letters and other documents passing between the British settlers at Jeannette, Kent County, Ontario, and the Premier, the Minister of Agriculture, or any other member of the Government, or any officer or official thereof. 2. All reports by any officer or official of the Government on conditions at Jeannette. 3. All correspondence with the Department of Colonization, the Minister of Agriculture, or any officer or official of the Government in reference to the conditions at Jeannette. Presented to the Legislature, 7th April, 1913. *Mr. Anderson (Bruce.) Not printed.*
- No. 89 Return to an Order of the House of the 26th February, 1913, for a Return showing:—1. The number of passes issued by the Timiskaming and Northern Ontario Railway Commission over its line of railway or any part thereof during the period from July 1st, 1911, to 1st July, 1912. 2. The persons to whom the said passes were granted. 3. The purpose for which each of the said passes was granted. Presented to the Legislature, 7th April, 1913. *Mr. Mageau. Not printed.*
- No. 90 Return to an Order of the House of the 10th March, 1913, for a Return showing:—1. Copies of the agreements entered into by the members of the following combines and seized by the Toronto Police: (a) The Saw Manufacturers' Association; (b) The Canadian Churn Manufacturing Association; (c) The Hame and Saddlery Hardware Manufacturing Association. 2. Copies of all correspondence between the Attorney-General or any other Member of the Government and any counsel with reference to the prosecution of the said combines. Presented to the Legislature, 8th April, 1913. *Mr. Elliott. Not printed.*
- No. 91 Return to an Order of the House of the 2nd April, 1913, for a Return showing:—Copies of all reports received by or in the possession of the Government upon the timber in Algonquin National Park covered by the following agreements:—1. Agreement dated 18th June, 1912, between the Crown and the Bank of Montreal. 2. Agreement dated 15th June, 1912, between the Crown and J. R. Booth. 3. Agreement dated 4th June, 1912, between the Crown and H. Stikeman, General Manager of the Bank of British North America. Presented to the Legislature, 8th April, 1913. *Mr. Marshall. Not printed.*

- No. 92 Return to an Order of the House of the 3rd April, 1913, for a Return showing:—The findings of the Grand Jury in the prosecution against the Tack Combine. Presented to the Legislature, 8th April, 1913. *Mr. Sinclair. Not printed.*
- No. 93 Return to an Address to His Honour the Lieutenant-Governor of the third day of April, 1913, praying that he will cause to be laid before this House, a Return of copies of all Orders in Council passed during the years 1906, 1907, 1908, 1909, 1910, 1911, 1912, increasing or decreasing the duties payable for tavern or shop licenses in any Provincial or Judicial District or in any municipality or locality situated therein. under authority of 6 Edw. VII., Chap. 47, Sec. 10 (1), and showing in respect to every such Order in Council: (a) the date of the same, (b) the name of the person holding the shop or tavern license affected by the said Order in Council, (c) the place where such shop or tavern license was held, (d) the amount of license fee as fixed by such Order in Council, (e) the amount of the license fee previous to such increase. Presented to the Legislature, 8th April, 1913. *Mr. Anderson (Bruce.) Not printed.*
- No. 94 Return to an Order of the House of the 14th March, 1913, for a Return showing:—1. The number of instruments registered in each of the years 1909, 1910, and 1911. in the Land Titles Office, at Toronto. 2. The total amount of fees received in each of the said years. 3. The total amount of disbursements for each such year. 4. The amount of the Guarantee Fund. 5. The total losses. 6. The number of Plans of sub-division. Presented to the Legislature, 9th April, 1913. *Mr. Proudfoot. Not printed.*
- No. 95 Copies of Orders-in-Council in accordance with the provisions of subsection 6 of section 78 of the Surrogate Courts Act. Presented to the Legislature, 14th April, 1913. *Not printed.*
- No. 96 Copy of an Order in Council approved by His Honour the Lieutenant-Governor, the 3rd day of April, A.D. 1913, approving of the accompanying regulation, being a regulation of the Provincial Board of Health, for the control of Communicable Diseases under the provisions of the Public Health Act, Chapter 58, 2 George V. Also Regulations of the Provincial Board of Health, Ontario, approved by His Honour the Lieutenant-Governor in Council on the 10th day of August, 1912. Presented to the Legislature, 14th April, 1913. *Not printed.*
- No. 97 Return to an Order of the House of the 19th February, 1913, for a Return showing:—1. The names of all Counsel retained on behalf of the Crown at any criminal assize in the Province during the year ending 31st December, 1912. 2. The Assize at which each Counsel was so retained. 3. The amount paid

to every such Counsel for services rendered to the Crown at every such assize. 4. The names of all Solicitors or Counsel employed or retained by the Crown for any other purposes during the year ending 31st December, 1912, showing:—(a) The amount paid to every such Solicitor or Counsel. (b) The matter in respect of which such Counsel or Solicitor was so employed or retained. 5. The total amounts paid to Counsel for the Crown in criminal or other proceedings for the years 1910, 1911 and 1912. Presented to the Legislature. 14th April, 1913. *Mr. Richardson. Not printed.*

No. 98 Return to an Order of the House of the 9th April, 1913, for a Return showing:—1. Copies of all correspondence during the past year between the Minister of Agriculture or any other member or official of the Government and N. B. Colcock (formerly employed in the London Office of the Colonization and Emigration Branch) relating to the reorganization of the London Office, to the staff thereof, or to the resignation of the said Colcock, or to his dismissal from office, or to his retirement from the service of the Government, or to any other matters connected therewith. 2. Copies of all correspondence during the last year between the Minister of Agriculture or any other member or official of the Government and any other person or persons relating to the matters aforesaid. Presented to the Legislature, 15th April, 1913. *Mr. Anderson (Bruce.) Not printed.*

No. 99 Return to an Order of the House of the 15th April, 1913, for a Return showing:—Copies of all reports received by the Government and other information in the possession of the Government: 1. In reference to the general character of the country through which the projected line of the Bruce Mines and Algoma Railroad runs, and of the lands proposed to be granted to the said railway. 2. In reference to the extent and character of the different classes of timber on said lands. 3. In reference to the extent and character of the agricultural lands within the said areas. 4. In reference to the portion of the Mississagi Forest Reserve through which the projected line will pass and the effect that the construction of the said line will have upon the timber in the said Reserve. 5. The estimated length of the said line and the total estimated area of land to be granted to the said railway company. 6. In reference to the surveys already made, and the probable route of the said railway. 7. The names of the parties at present interested in or owning the said railway and who are responsible for its promotion with full information as to their business occupation and financial standing. 8. The character of the plants, mills or other industries upon which the railway undertakes to expend \$3,500,000 and the site or sites where it is proposed to locate the same; and if the parties now interested in the railway are the parties who

are to control the industries proposed to be established. Presented to the Legislature, 17th April, 1913. *Mr. Atkinson. Not printed.*

- No. 100 Copies of Orders in Council approved by His Honour the Lieutenant-Governor the 12th day of April, A.D. 1913, appointing John Donnelly, Esquire, one of the Governors of the School of Mining, Kingston, in the room and stead of H. W. Richardson, resigned, and Agreements made between the Canada Publishing Company and His Majesty the King, respecting the right to print, publish and supply the Ontario High School English Grammar, and the Ontario High School Reader: also, an Agreement between the Copp. Clark Company, Ltd., and His Majesty the King, respecting the right to print, publish and supply the Ontario High School Reader. Presented to the Legislature, 18th April, 1913. *Not printed.*
- No. 101 Return to an Order of the House of the 2nd April, 1913, for a Return showing:—All tavern and shop licenses, the renewal of which has been prohibited by the Provincial Secretary under Section 23 of 6 Edward VII., Chapter 47, as amended by Section 13 of 1 George V. Chap. 64. Presented to the Legislature, 18th April, 1913. *Mr. Proudfoot. Not printed.*
- No. 102 Return to an Order of the House of the 27th March, 1913, for a Return showing:—Copies of all licenses or permits granted by the Game and Fisheries Department to the Dominion Fish Company, or to any person on its behalf during the seasons 1910, 1911 and 1912. Presented to the Legislature, 18th April, 1913. *Mr. Clarke. Not printed.*
- No. 103 Return to an Order of the House of the 9th April, 1913, for a Return showing:—1. All correspondence between any member or official of the Government or any other person or persons, relating to the application of one John Lapointe of Spanish, for a renewal of his fishery license for the years 1911 and 1912. 2. Any reports or recommendations relating to the matter made by any official of the Game and Fisheries Department. Presented to the Legislature, 18th April, 1913. *Mr. Clarke. Not printed.*
- No. 104 Return to an Order of the House of the 10th March, 1913, for a Return showing:—(a) Copies of all correspondence between any official of the Government and the Standard Insurance Company during the years 1907, 1908 and 1909. (b) A copy of any Reports made by the Inspector who inspected the books of the Standard Insurance Company during the same years. (c) Copies of all correspondence between any official of the Government and the Liquidator of the Standard Insurance Company. Presented to the Legislature, 18th April, 1913. *Mr. Elliott. Not printed.*

- No. 105 Return to an Order of the House of the 19th February, 1913, for a Return showing:—1. All presentments made by Grand Juries within the Province of Ontario during the year ending 31st December, 1912, stating the assize at which each presentment was made and the date. Presented to the Legislature, 18th April, 1913. *Mr. Sinclair. Not printed.*
- No. 106 Return to an Order of the House of the 26th February, 1913, for a Return showing:—1. The amount of money expended directly by the Government in each of the years 1911 and 1912, in the construction or repair of (a) roads; (b) bridges, and (c) drains in each of the Districts of Sudbury, Nipissing, Parry Sound and Sturgeon Falls, distinguishing the amount spent in each of said Districts for each of said purposes. 2. The amount of money expended during 1911 and 1912, by the Government by way of aid to any municipalities in the said Districts in the construction or repair of roads, bridges or drains, stating in respect to each work which was undertaken with Government aid as aforesaid. (a) The purpose of the work, that is, whether for roads, bridges or drains, and whether for construction or repair. (b) The District in which such work was undertaken. (c) The amount expended by the Government on such work. (d) The amount expended by the municipality on such work. Presented to the Legislature, 18th April, 1913. *Mr. Mageau. Not printed.*
- No. 107 Return to an Order of the House of the 27th February, 1913. for a Return of:—1. Copies of all correspondence during the years 1910 and 1911 between the Minister of Lands, Forests and Mines, or any other member of the Government, and the Imperial Paper Mills Company, or the Liquidator or Interim Liquidator of the Imperial Paper Mills with reference to the diversion of water from Lake Temagami into the Montreal River. 2. Copies of all correspondence passing during the years 1910 and 1911 between the Minister of Lands, Forests and Mines or any other member of the Government, and the Council of the Town of Sturgeon Falls, or any official or any other person on behalf of the Town of Sturgeon Falls, or the Board of Trade of the Town of Sturgeon Falls, or any person on behalf of the said Board of Trade. 3. How many cubic feet of water per second have been diverted from Lake Temagami into the Montreal River, and what is the available head of water, and what is the horse power. Presented to the Legislature, 21st April, 1913. *Mr. Mageau. Not printed.*
- No. 108 Statement of distribution of Revised and Sessional Statutes for the year 1912. *Not printed.*
- No. 109 Return to an Order of the House of the 10th March, 1913, for a Return showing copies of the resolutions (if any) adopted at the Board Meeting held at the Horticultural Experiment Station at Jordan Harbour on or about December 17th last. Pre-

sented to the Legislature, 23rd April, 1913. *Mr. Anderson (Bruce.) Not printed.*

- No. 110 Return to an Order of the House of the 27th March, 1913, for a Return showing:—1. Copy of an Order in Council dated the 23rd April, 1910, reducing the royalty payable to the T. & N. O. Railway by the Right of Way Mining Company. 2. Copy of an Order in Council dated 17th December, 1912, further reducing the royalty payable by the Right of Way Mining Company to the T. & N. O. Railway. 3. Copy of an Order in Council dated December 14th, 1909, reducing the royalty payable by the Cobalt Townsite Mining Company to the T. & N. O. Railway. 4. Copy of an Order in Council dated December 17th, 1912, further reducing the royalty payable by the Cobalt Townsite Mining Company to the T. & N. O. Railway. 5. Copy of an Order in Council dated December, 14th, 1909, reducing the royalty payable by the City of Cobalt Mining Company to the T. & N. O. Railway. 6. Copy of an Order in Council dated December 23rd, 1912, further reducing the royalty payable by the City of Cobalt Mining Company to the T. & N. O. Railway. 7. Copy of an Order in Council dated December 14th, 1909, reducing the royalty payable by the Nancy-Helen Mines, Limited, to the T. & N. O. Railway. 8. Copy of an Order in Council dated December 17th, 1912, further reducing the royalty payable by the Nancy-Helen Mines, Limited, to the T. & N. O. Railway. 9. Copy of an Order in Council dated December 14th, 1909, reducing the royalty payable by the Wright Silver Mining Co., to the T. & N. O. Railway. 10. Copy of an Order in Council dated December 17th, 1912, further reducing the royalty payable by the Wright Silver Mining Co., to the T. & N. O. Railway. 11. Copy of an Order in Council dated December 14th, 1909, reducing the royalty payable by the Railway Reserve Mines, Limited, Jack Pot Silver Mining Company, Ontario Development and Mining Company, and Station Grounds Mining Company, to the T. & N. O. Railway. 12. Copy of an Order in Council dated December 17th, 1912, further reducing the royalty payable by the Railway Reserve Mines, Limited, Jack Pot Silver Mining Co., Ontario Development and Mining Company and Station Grounds Mining Company, to the T. & N. O. Railway. 13. Copy of an Order in Council or agreement reducing the royalty payable by the O'Brien Mine to the Crown. 14. Copy of Order in Council or agreement, further reducing the royalty payable by the Chambers-Ferland Mining Company from 25 *per cent.* of value of ore at pit's mouth, less surface charges, to 25 *per cent.* of net profits. 15. Copy of agreement dated 8th October, 1912, exempting Chambers-Ferland Mining Company from royalty, unless on rich ore being found, when rate of 25 *per cent.* on net profits made to be imposed. Presented to the Legislature, 23rd April, 1913. *Mr. McDonald. Not printed.*

- No. 111 Return to an Order of the House of the 26th February, 1913, for a Return shewing:—1. Copies of all correspondence and other papers, documents, etc., seized by the Crown in connection with the prosecution of the Canadian Washing Machine Manufacturing Association. 2. Copies of all correspondence between the Government or any member or official of the Government and any other person or persons relating to the Canadian Washing Machine Manufacturing Association, or the prosecution thereof, or the discontinuance of such prosecution. 3. Copies of all correspondence and other papers, documents, etc., seized by the Crown in connection with the prosecution of the Canadian Clothes Wringer Manufacturing Association. 4. Copies of all correspondence between the Government, or any member or official of the Government, and any other person or persons, relating to the Canadian Clothes Wringer Manufacturing Association, or the prosecution thereof, or the discontinuance of such prosecution. Presented to the Legislature, 23rd April, 1913. *Mr. Sinclair. Not printed.*
- No. 112 Return to an Order of the House of the 14th March, 1913, for a Return showing:—For the year 1912. 1. The number of cases in which damage suits were entered in Court against the employer. 2. The number of instances where damages were obtained and the amounts. 3. The number of cases non-suited by the Court. 4. The number of cases where employers settled by paying compensation without damage suit and the amounts. Presented to the Legislature, 7th May, 1913. *Mr. McQueen. Not printed.*
- No. 113 Return to an Order of the House of the 27th March, 1913, for a Return showing:—1. The names of the professors of the Faculty of Education (not including instructors in practice schools) at (a), Toronto University; (b), Queen's University. 2. The number of hours teaching done by each of said professors *per* week. 3. The number of students in attendance in the Faculty of Education during the Session 1912-1913, at (a), Toronto University; (b), Queen's University. 4. The average cost *per* pupil in the Faculty of Education during each of the last five years at (a), Toronto University; (b), Queen's University. 5. The number of extra-mural students under instruction by the Faculty of Education at (a), Toronto; (b), Queen's. 6. The number of hours of instruction *per* session given in each of the following subjects of the course of study in education:—(a) History of Education and Educational systems; (b) Principles of Education; (c) Psychology and General method; (d) School management and school law; (e) Methods in Public School subjects; (f) Methods in High School subjects; (g) Art work; (h) Commercial work and writing; (i) Constructive work; (j) Household science; (k) Nature study; (l) Music; (m) Physical training; (n) Physiology and Hygiene, including treatment of emergencies. Presented to the Legislature, 7th May, 1913. *Mr. Marshall. Not printed.*



Collection of Grain from Timiskaming. For exhibition by Canadian Emigration Department, British Isles.

ELEVENTH ANNUAL REPORT

OF THE

Temiskaming and Northern Ontario Railway Commission

ONTARIO GOVERNMENT RAILWAY
SIR JAMES PLINY WHITNEY, PREMIER

For the Year Ended October 31st,

1912

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

Printed and Published by L. K. CAMERON, Printer to the King's Most Excellent Majesty

1913

Printed by
WILLIAM BRIGGS
29-37 Richmond Street West
TORONTO

To His Honour SIR JOHN MORISON GIBSON, K.C.M.G.,

Lieutenant-Governor of Ontario.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to present to Your Honour the Eleventh Annual Report of the Temiskaming and Northern Ontario Railway Commission for the fiscal year ended October 31st, 1912.

Respectfully submitted,

J. O. REAUME,

Minister of Public Works.

TORONTO, December 30th, 1912.

HON. J. O. REAUME,

Minister of Public Works,

Toronto, Ontario.

SIR,—I have the honour, by direction, to submit to you for presentation to the Legislature the Eleventh Annual Report of the Temiskaming and Northern Ontario Railway Commission for the fiscal year ended October, 1912.

I have the honour to be,

Sir,

Your obedient servant,

A. J. MCGEE,

Secretary-Treasurer.

The Temiskaming and Northern Ontario Railway Commission.

J. L. ENGLEHART	<i>Chairman</i>	Petrolia.
DENIS MURPHY	<i>Commissioner</i>	Ottawa.
FREDERICK DANE	<i>Commissioner and Land Commissioner</i> ...	Toronto.

CHIEF OFFICERS.

A. J. MCGEE	<i>Secretary-Treasurer</i>	Toronto.
S. B. CLEMENT	<i>Chief Engineer and Supt. of Maintenance</i>	North Bay.
W. A. GRIFFIN	<i>Superintendent of Traffic</i>	North Bay.
H. F. MACDONALD	<i>Accountant</i>	Toronto.
A. J. PARR	<i>General Freight and Passenger Agent</i> ..	North Bay.
T. ROSS	<i>Master Mechanic</i>	North Bay.
WM. YOUNG	<i>General Roadmaster</i>	North Bay.
GEO W. LEE	<i>General Agent</i>	North Bay.
W. A. GRAHAM	<i>Purchasing Agent and Storekeeper</i>	North Bay.
A. R. H. MITCHELL	<i>Traffic Accountant</i>	North Bay.
C. L. FERGUSON	<i>Paymaster</i>	North Bay.
S. H. RYAN	<i>Train Master</i>	North Bay.
W. J. OLDHAM	<i>Bridge and Building Master</i>	North Bay.
A. EDWARDS	<i>Supervisor</i>	North Bay.
S. J. FAUGHT	<i>Supervisor</i>	North Bay.
J. DRINKWATER	<i>Supervisor</i>	North Bay.
J. J. CAMPBELL	<i>Chief Despatcher</i>	North Bay.
W. J. DOUGLAS	<i>Road Foreman Locomotives</i>	North Bay.
W. J. KELLY	<i>Supt. Telegraph Construction</i>	North Bay.
ARTHUR A. COLE	<i>Mining Engineer</i>	Cobalt.
J. G. KERRY	<i>Consulting Engineer</i>	Toronto.

APPOINTMENTS.

Effective January 1st, 1912: A. R. H. Mitchell, heretofore Acting Traffic Accountant, was appointed Traffic Accountant.

TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION

General Remarks

Accounts and statistics for year ended October 31st, 1912, herewith:—

The mileage in operation on October 31st, 1912, was:—

MAIN LINE.		Miles.
North Bay to Cochrane	252.8	
		252.8
BRANCH LINES.		
Charlton Branch	7.8	
Kerr Lake Branch	3.9	
Haileybury Spur	1.64	
Porcupine Branch	33.48	
		46.82
YARDS AND SIDING.		
Yards and Sidings, Main and Branch Lines	91.99	
Liskeard Spur	.64	
		92.63
Total mileage		392.25

Following is the condensed statement of Revenue Account for the year ended October 31st, 1912, compared with the year 1911. The sub-divisions of the condensed items given below for 1912 are shown in detail in the financial part of this report:

	1912.	1911.
Revenue from Transportation	\$1,618,535.44	\$1,708,249.02
Revenue other than transportation	88,914.63	72,715.81
Total Operating Revenue	\$1,707,450.07	\$1,780,964.83
Operating Expenses	1,384,697.69	1,181,998.63
Net Operating Revenue	\$322,752.38	\$598,966.20
Ore Royalties	135,500.31	17,060.56
Hire of Equipment, etc.	\$458,252.69	\$616,026.76
Total Earnings	\$454,201.74	\$593,152.69

The Operating Expenses amount to 81.1 per cent. of the Gross Earnings, and the Net Earnings to 18.9 per cent., as compared with 66.4 per cent. and 33.6 per cent., respectively, for the twelve months ended October 31st, 1911.

Total of the pay-rolls for the year amounted to:—

Operation	\$959,453.97
Construction	130,856.68

*Total	\$1,090,310.65
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It will be noted that the cost of operating during the past year has increased 14.7 per cent. over the previous year.

The revenue since the early part of the current year has regularly shown a decrease in comparison with similar month last year, due to the fact that the Commission has placed freight rates on a basis, that to-day they are lower than any railway in Canada. Special rates on commodities, such as hay, potatoes, pulp-wood *et al.*, as encouragement to the settler, are in effect.

Efforts have been made during the year to interest various municipalities, notably, Council of the City of Toronto, in the deposits of the North. trap-rock for roadmaking. As an encouragement, special rate, in which G. T. Railway were good enough to join, was made of \$1.35 per ton. Cobalt to Toronto and vicinity, and initial shipment made. Trap-rock is the ideal rock for paving purposes, if not the only real paving material.

EARNINGS AND EXPENSES.

Increased operating percentage is due to large increase in expenses; statements covering will be found in the financial part of the report.

MAINTENANCE OF WAY AND STRUCTURES.

The Commission continues its policy of expending generously in the upkeep of its road-bed; details of such work will be found in the report of the Chief Engineer and Superintendent of Maintenance.

MAINTENANCE OF EQUIPMENT.

The large increase in these expenses is due to the efforts of the Commission to maintain its equipment to the highest standard of efficiency; statements covering the cost of maintaining locomotives, passenger and freight cars will bear out; in addition since the first of the current fiscal year there has been written off monthly, charges for depreciation of the different classes of equipment and credited to appropriate depreciation accounts to provide for replacement.

TRAFFIC EXPENSE.

Show a small increase over previous year, principally due to advertising the "Empire of the North," by issuing pamphlets, the Demonstration Car, and the work generally in conjunction with the Department of Agriculture.

TRANSPORTATION EXPENSES.

The increased mileage of locomotives, the accompanying increase in consumption and cost of fuel, the comparative statements show.

*Last year \$783,218.89 was paid in wages, showing an increase this year of \$307,091.76.

INCREASED COST OF LABOR.

Included in this report on pages 11-12-13 are comparisons of wages of trainmen, enginemen, telegraphers, station employees, maintenance men, showing increases 3 per cent. to 38 per cent. The Commission have met the demands of employees, and while the claim of the Commission are that the traffic did not warrant the increased demands, have been considered, increases have been granted so that to-day the enginemen, trainmen, station employees, maintenance men are paid as high wages as any railway, and larger than most railways.

Insurance—Fire.

BUILDING AND CONTENTS.

Division No. 1	\$595,600	
Division No. 2	177,800	
Kerr Lake Branch	600	
Charlton Branch	9,100	
Porcupine Branch	51,600	
		\$837,700

BRIDGES AND TRESTLES.

Division No. 1	\$12,400	
Division No. 2	58,900	
Kerr Lake Branch	4,500	
Charlton Branch	10,700	
Porcupine Branch	10,300	
		126,800

FREIGHT.

General Merchandise	\$200,000	
		200,000

ROLLING STOCK.

Locomotive and Tenders	\$397,400	
Passenger Equipment	321,450	
Freight Equipment	462,630	
Work Equipment	142,820	
Foreign Equipment	100,000	
		\$1,424,300

Total Insurance\$2,588,800

The rate on the above insurance is \$1.99 per \$100 for a period of three years and divided—Western Assurance Company, 50 per cent.; Home Insurance Company, 35 per cent.; Norwich Union Fire Insurance Society, 15 per cent.

MINES—MINERALS.

Attention is directed to the preliminary report of the Mining Engineer. The regular and complete report of the year will be published under separate cover.

SURVEYS—CONSTRUCTION.

Attention is directed to the Chief Engineer's Report covering Surveys, etc.:

Porcupine, Sault Ste. Marie—survey.

Elk Lake, Porcupine, Gowganda—survey.

Iroquois Falls Branch—survey.

James Bay surveys.

Extension Porcupine Branch to Timmins.

Construction of Elk Lake Branch.

Montreal River Bridge.

PROPOSED JAMES BAY RAILWAY.

The report of Mr. J. G. McMillan, harbor facilities, etc., James Bay, will be printed under separate cover.

PROPOSED JAMES BAY RAILWAY LOCATION.

The report of Mr. W. R. Maher will be printed under separate cover.

RIGHT OF WAY, ETC.

Attention is directed to the statement of lands purchased during the year on page 140 of report.

AGRICULTURE.

The Hearst-Whitson year. The asset of to-day, of the to-morrow—The Northland—The land of two annual crops—The land for the settler—The land for the man who desires labor for the whole year—The land of grain, of vegetables, of roots and of grasses has been proven. The object lesson may be seen in the Northland to-day and to-morrow. The crop of the spring, summer, fall of the year. The crop of the winter—logs and lumber, railway ties and telegraph poles, posts and pulpwood to no end, with a home market at your own door, so to speak, for the two crops of each year.

The Hearst-Whitson land invites you. They have opened out this fiscal year more than two hundred miles of good honest roads, for full value received, and we now can and now do invite you as we have never done before to come into the land of the North, for your homestead, into the land of two crops per year; into the land of an outside as well as a home market—into the land of homesteads for countless thousands; into the land of tranquility; into the land of the greatest and best Province of this great Dominion with an area of 407,252 square miles of land and water, forests, minerals of silver, gold, copper, nickel, etc., etc.; the land of the fresh water as well as the salt water ports—the land that offers to you every class and kind of farming, as well as every class of labor—for the man or woman—the land of the North.

TOWNSITES.

The original upset prices upon all lots of the Townsites have been and are maintained, have not been advanced in price. The reports of the land department included herein are referred to as to what the Commission has done and are doing.

DEMONSTRATION CAR.

The car has again travelled through the Province. A special car fitted up with the object of exhibiting the resources of the Northland, in co-operation with the Department of Agriculture, has been sent through the parts of the Province from east to west, the north and south, the many letters and newspaper reports expressing satisfaction; the many enquiries from prospective settlers amply demonstrating the success of the efforts in bringing before the people what their own Province can do, and has in store for the husbandman who comes to the Greater Northland—the future home of countless thousands.

During the year we carried 497,452 passengers, and thankful to say have kept up the good record of not killing a single passenger. Since beginning of operation, 1905, we have carried 3,672,407 passengers and have not killed one.

STATEMENT SHOWING INCREASES GRANTED TRAINMEN, TELEGRAPHERS
AND MAINTENANCE OF WAY EMPLOYEES

Occupation	Class of Service	Per 100 Miles prior to October, 1910	Per 100 Miles since October, 1910	Per Cent Increase
Conductors....	Passenger	\$2.44	2.68	9.8
"	Way Freight.....	3.50	3.97½	13.6
"	Through Freight.....	3.10	3.63	17.1
"	Pick Up.....	3.10	3.80	22.6
"	Work and Snow Plow.....	3.10	3.63	17.1
"	No. Bay Yard, Day.....	3.10	3.70	19.4
"	" Night.....	3.10	3.90	25.8
"	Other Yards, Day.....	3.10	3.60	16.1
"	" Night	3.10	3.80	22.6
Baggagemen....	Passenger Train.....	1.4152	1.55	9.5
Brakemen.....	"	1.2932	1.50	16.
"	Way Freight	2.45	2.70	10.2
"	Through Freight	2.07	2.42	16.9
"	Pick Up	2.07	2.56	23.7
"	Work and Snow Plow.....	2.07	2.42	16.9
"	No. Bay Yard, Day	2.60	3.40	30.8
"	" Night.....	2.60	3.60	38.5
"	Other Yards, Day.....	2.60	3.30	26.9
"	" Night.....	2.60	3.50	34.6
Engineers.....	Passenger (Engs. 109-110).....	3.55	3.74	5.3
"	" (Less than 125%).....	3.55	3.80	7.
"	" (More than 125%).....	....	3.90	..
"	Way Frt. (Engs. 109-110).....	4.15	4.40	6.
"	" (Less than 125%).....	4.15	4.50	8.4
"	" (More than 125%).....	....	4.65	..
"	Thru. Frt. (Engs. 109-110).....	3.95	4.12	4.3
"	" (Less than 125%).....	3.95	4.23	7.1
"	" (More than 125%).....	....	4.35	..
"	Work Train (Engs. 109-110).....	3.65	3.80	4.1
"	" (Less than 125%).....	3.65	3.90	6.8
"	" (More than 125%).....	....	4.00	..
"	Yard (All Engines).....	3.50	3.90	11.4
"	Reps. and Watching.....	3.50	3.85	10.
Firemen	Passenger (Engs. 109-110).....	2.20	2.25	2.3
"	" (Less than 125%).....	2.20	2.42	10.
"	" (More than 125%).....	....	2.53	..
"	Way Frt. (Engs. 109-110).....	2.60	2.60	..
"	" (Less than 125%).....	2.60	2.80	7.7
"	" (More than 125%).....	....	3.00	..
"	Thru. Frt. (Engs. 109-110).....	2.30	2.53	10.
"	" (Less than 125%).....	2.30	2.64	14.8
"	" (More than 125%).....	....	2.75	..
"	Work Train (Engs. 109-110).....	2.30	2.37	3.
"	" (Less than 125%).....	2.30	2.48	7.8
"	" (More than 125%).....	....	2.58	..
"	Yard (All Engines).....	2.20	2.45	11.4
"	Reps. and Watching.....	2.50	2.50	..

Occupation.	Rate per Hour prior to June, 1911.	Rate per Hour since June, 1911.	Per Cent. Incr.
	\$ e. c.	\$ e. c.	
Yard Foreman, North Bay, Cobalt, Englehart and Cochrane.....	25½	29½	15.7
Yard Foreman, Latchford, Cobalt, New Liskeard and Matheson.....	24	27½	14.6
All other Section Foremen	23	26½	15.2
Assistant Yard Foreman.....	22½	25½	13.3
Extra Gang Foreman.....	30 to 36½	30 00 to 36½	.....
Pit and Ditcher Foreman.....	80 00	85 00 (per month)	6.2
Assistant Extra Gang Foreman.....	22½ to 25	22½ & 25	.....
Sectionmen	16½	19	15.2
Extra Gang Laborers.....	17½	17½ (19th July, 15-12)	8.6
Snow Plow and Flanger Foreman.....	33	37	12.1
B. and B. Foreman	25 to 32½	33½ to 37	13.8
Bridgemen.....	25	23 " 29	16.0
Carpenters.....	22½ to 25	23 " 29½	16.0
Laborers and Handymen	15 to 22½	20 " 22½	.....
All Maintenance of Way Employees, average per cent. increase.....			10.1

We have pleasure in directing attention to report of Edwards, Morgan & Company, Chartered Accountants, with reference to the accounts.

TORONTO, Jan. 16, 1913.

J. L. ENGLEHART, Esq., Chairman,

Temiskaming and Northern Ontario Railway Commission,
Toronto, Ont.

DEAR SIR,—

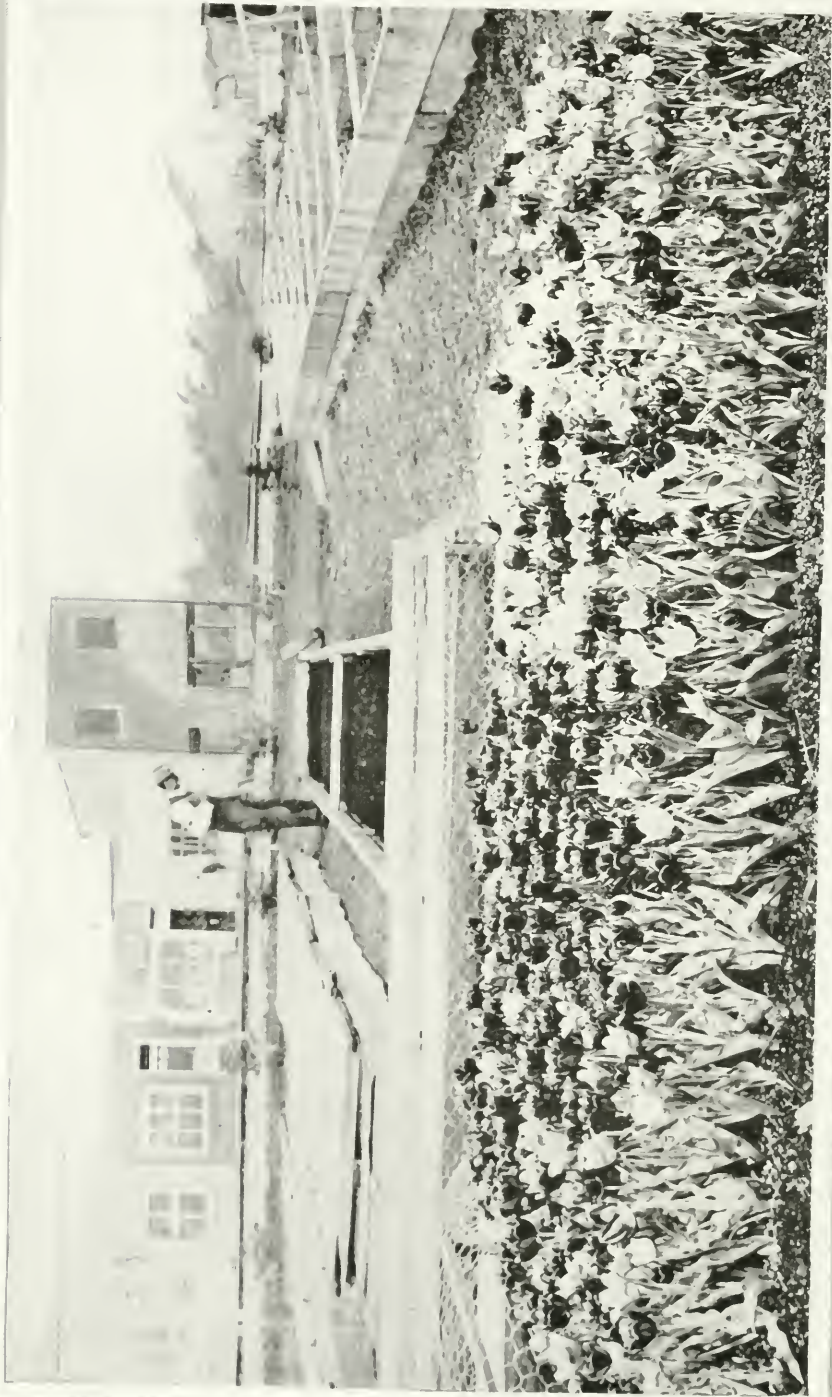
Under instructions from the Commissioners, we have audited the accounts of the Commission having reference to the Cash Receipts and Disbursements, Accounts Collectible, Accounts Payable, Agents' and Conductors' Accounts, Foreign Tickets, Foreign Freights, Car Mileage Accounts, and Bank Balances. Our examination has covered the period from the 1st of November, 1911, to the 31st of October, 1912.

We certify that all transactions relating thereto have been properly vouched, and that the Cash and Bank Balances have been duly accounted for. We have verified the balance of Accounts outstanding and have ascertained that they correspond with the General Ledger Accounts.

We have pleasure in noting the continued efficiency of your office organization. There has been, if anything, an improvement in this respect over the previous year.

We are, yours faithfully,

EDWARDS, MORGAN & CO.



Tulips at Englehart.

COUNSEL'S REPORT—D. E. THOMSON, K.C.

Litigation.

At the close of the financial year there were no actions pending with the Commission as plaintiff, and only one (Russ mentioned below) with the Commission as defendants.

(a) McDonnell vs. T. & N. O. This action was based on the second construction contract and was instituted to recover an alleged claim of about \$1,750,000. The Contractor made a similar claim under the first construction contract, and procured a fiat allowing him to institute another suit on that contract. That suit, however, was never launched. Settlement was ultimately effected in November, 1911, the Plaintiff accepting in full settlement of all claims under both contracts, the sum of \$162,500 being the amount (without interest) which the Commission had offered two or three years previously, before suit was instituted.

The necessary releases were consummated and the money paid over early in March, 1912.

(b) Edwards, Liquidators, McRae, Chandler & McNeil vs. T. & N. O. Commission.

This action was based on a contract, dated 28th February, 1907, for the construction of the portion of the Commission's line, beginning one hundred miles north of New Liskeard, and ending at the junction with the National Transcontinental at Cochrane (being about 40 miles). The Contractors, having encountered unexpected difficulties in the work of construction, and becoming financially embarrassed, were dismissed, and the Commission took over and completed the work, paying in full all unpaid claims against the Contractors for supplies and labor.

Failing adjustment of the accounts, the action was brought to recover an alleged claim of approximately \$391,000. A settlement was finally effected whereby the Commission paid the sum of \$10,000, in full settlement, on terms that out of same the outstanding claims of the smaller creditors of the Contractors should be paid in full. The settlement also included the Contractors' original deposit of \$10,000 as security, and provided for the retention by the Commission of all the remaining plant, machinery, supplies, etc., on the work. The necessary releases were completed, and the money paid over in December, 1911.

(c) Lefebvre vs. T. & N. O. Settlement was duly approved by the Court and carried out.

(d) Toronto General Trusts Corporation, Administrators, C. C. Forsyth vs. T. & N. O. Settlement, approved by the Court and carried out.

(e) Cobalt Lake Mining Company arbitration. To determine compensation to which Mining Company entitled by reason of extension of Cobalt Station grounds and partial filling of Cobalt Lake. Mining Company claims exemplary damages, contending that the rock fill was liable to disturb hard pan covering of bottom of lake, making mining operations hazardous. This claim was disallowed by the arbitrators, who awarded the company \$5,000. Costs of the arbitration not yet taxed.

(f) Carmichael vs. T. & N. O. Claim for damages in connection with death of employee. Settlement effected, but action necessary because infants were interested. Settlement has been approved by the Court and carried out.

(g) Weiss vs. T. & N. O. Similar action; settlement made, approved by the Court and carried out.

(h) Russ vs. T. & N. O. Action by former employee for accidental injuries. Settlement negotiated, but not closed at the end of the year.

Accident Claims.

A number of other claims by employees and other parties were made during the year. Most of them have been settled, and in no case except those already mentioned have writs been issued.

Damage Claims.

As usual a considerable number of claims have arisen in respect of freight, etc., lost, destroyed, delayed, misdelivered or damaged. Most of these claims have been adjusted or abandoned, but several were still pending at the end of the year. No suits.

Grand Trunk Running Rights.

The long-drawn-out negotiations in this connection were concluded by an agreement, dated 1st December, 1911, but not actually executed until some weeks later.

This agreement includes and supersedes the former agreement for Joint Freight Yard and Station at North Bay; it also co-ordinates with the lease by the Commission to the Grand Trunk of the Nipissing Junction connection. It gives the Grand Trunk running rights for through and interchanged traffic on the main line of the Commission with the joint use of the North Bay and Englehart yards, for the annual rental of \$300,000, together with further sums equal to $4\frac{1}{2}$ per cent. of half of all approved expenditures for betterments made on the joint section since 1st July, 1911. In addition to such rental the Grand Trunk has to pay its proportionate share of operating and general expense.

The agreement is to be in force for 25 years from the day on which the Grand Trunk begins to use the joint section with the option to the Grand Trunk on one year's notice to a renewal for another 25 years at a rental to be agreed upon, or failing agreement to be fixed by arbitration.

The Grand Trunk having under the Dominion Statutes no rights to enter into such an agreement for a longer period than 21 years, the arrangement was subject to the approval of the Dominion Parliament, which has since validated the agreement. At the same time a supplemental agreement was entered into with the Canadian Express Company, covering express business by the Grand Trunk. This latter agreement comes into effect when the Grand Trunk begins to use the joint section.

Mining Leases.

(a) Cobalt Townsite Mining Company. The mining lease in this case has been amended, basing future royalties on net profits.

(b) City of Cobalt Mining Company. Proposed amendment to this lease has not yet consummated.

(c) Nancy Helen Mines, Limited. This lease was surrendered and new lease with royalty based on net profits granted to Col. S. W. Ray, who has since assigned same to Buffalo Mines, Limited.

Canadian Northern Ontario Railway Company.

Application by the above Company is pending before the Dominion Board of Railway Commissioners for crossing the Commission's line at North Bay. We have objected to the jurisdiction, and there has been considerable negotiations with a view to arriving at a satisfactory agreement, but so far without definite result.

Elk Lake Branch.

We have procured, under the terms of "The Protection of Navigable Waters" Act the approval of the Dominion Minister of Public Works to the proposed bridge across the Montreal River.

Nipissing Central Railway Co.

During the year this line has been extended from Haileybury to New Liskeard, and between North Cobalt and Cobalt has been deflected from the independent right-of-way to the right-of-way of the Commission. The necessary changes of the Municipal franchises and the necessary approvals of the Dominion Minister of Railways and the Dominion Board of Railway Commissioners have been secured.

There is one suit pending against the Company, being brought by Miss Augusta Carroll for recovery of damages for alleged personal injuries.



Commissioners and Officials Inspection Bridge, Montreal River, Elk Lake Branch.

ANNUAL REPORT OF CHIEF ENGINEER AND SUPERINTENDENT
OF MAINTENANCE

Year Ended October 31st, 1912.

S. B. CLEMENT, C.E & S. OF M.

The work falling under the jurisdiction of the Chief Engineer and Superintendent of Maintenance is divided under the following heads:—

Engineering—

Surveys.

Construction.

Maintenance of Way and Structures—

Track Department.

Bridge and Building Department.

Telegraph Department.

Maintenance of Equipment—

Motive Power and Car Department.

Engineering.*Nipissing Junction Spur:*

Tracklaying on the Nipissing Junction Spur from North Bay Junction to Nipissing Junction had been completed at the beginning of the fiscal year. The track has since been ballasted, and beginning December 3rd, 1911, is operated and maintained by the Grand Trunk Railway, under the agreement of May 1st, 1911.

Joint Terminals—North Bay:

The additional buildings and sidings at North Bay and North Bay Junction necessary to handle the Grand Trunk traffic have been completed, and the North Bay Terminals have been used jointly by the Grand Trunk and T. & N. O. Railways since December 3rd, 1911.

Porcupine Branch:

At the beginning of the fiscal year a regular passenger and freight service was maintained on the Porcupine Branch to South Porcupine Station, M.P. 26.7, and a switching freight service to Dome Junction, M.P. 28.2. The construction of an extension from Dome Junction to Schumacher and Timmins, M.P. 33.2, was carried on during the winter. The grading of this extension was completed and track was laid to Timmins to permit the regular operation of a local passenger and freight service between South Porcupine and Timmins on March 11th, 1912. The construction organization was then disbanded and the entire branch was turned over to the Operating Departments. Since then the ballasting of the line and the construction of terminal facilities at Timmins, etc., have been completed by the Maintenance of Way Department, as are more fully described under the reports of the various heads of the department. The terminal facilities at Timmins were so far completed as to permit the running of all trains through to Timmins, and South Porcupine was abandoned as the temporary terminus of the line.

Elk Lake Branch:

A branch line from Earleton, on the present main line, to Elk Lake, has been located and placed under construction.

In the year 1909 an extension of the Charlton Branch to Elk Lake was located. The length of this extension from the new station at Charlton to the east side of the Montreal River at Elk Lake would be 17.8 miles. The country through which the line was located was rough and rocky and mostly unfit for agriculture. It was estimated that the cost of construction would be \$570,000.00, not including the Montreal River Crossing which would cost an additional \$65,000.00, making the total cost of the extension to the west side of the river \$635,000.00. The grades on the Charlton Branch, between Englehart and Charlton, are very heavy; the maximum grade being 2.67 per cent., compensated for curvature. The grades on the extension would be 0.8 per cent., but as all traffic would have to pass over the heavy grades between Charlton and Englehart, the benefit of the 0.8 per cent. grades on the extension could never be fully realized, and it would be perpetually handicapped.

In the year 1911 an extension of the Porcupine Branch was under consideration. It was thought that the development of the mineral district between Porcupine and Gowganda might necessitate the extension of the Porcupine Branch, which extension would accommodate the requirements of the Gowganda Mining District and avoid the necessity for a railway from the main line of the T. & N. O. Railway to Elk Lake. A trial line was run between Gowganda and Porcupine, full information concerning this survey appearing in the Annual Report of the Commission for 1911. On the completion of this survey, early in December, 1911, the idea of reaching Gowganda by an extension of the Porcupine Branch was definitely abandoned.

In November, 1911, a reconnaissance indicated that a favorable location for a railway to Elk Lake could be obtained by leaving the main line near Earleton and passing southwesterly and westerly through the northern parts of the Townships of Henwood, Cane and Barber to the Montreal River, and thence up the Montreal River to Elk Lake. This reconnaissance showed that although the Earleton route would be about eleven miles longer than the Charlton route, the cost of construction of the two lines would be practically the same. The grades and curvature on the Earleton route would be much more favorable, and the line, for the greater part, would pass through what would become a good farming district, no rock being encountered between Earleton and the Montreal River. From an operating and traffic standpoint, the Earleton route appeared much more favorable. The preliminary location surveys, which immediately followed, confirmed these predictions. It was then estimated that the cost of construction would be \$600,000.00. In order to meet the requirements of the Department of Public Works of Canada, it was necessary to erect a much more expensive bridge at the Montreal River than was contemplated in the above estimate, but notwithstanding it is probable that when completed the total cost will not exceed \$600,000.00.

This expensive crossing of the Montreal River just above Mountain Lake might have been avoided by following the north-east bank of the river to Elk Lake. However, it was considered advisable to cross the river and build up the south-west bank in order to serve the mining operations in the Townships of Willet and James, and be in a favorable position, at a later date, to extend from Elk Lake to Gowganda. Had the north-east bank been followed, in order to extend to Gow-

ganda, it would be necessary to cross the river at the narrows at Elk Lake, which would involve very heavy expenditures for right-of-way on each side of the river.

On February 24th, 1912, tenders for grading of the Elk Lake Branch were called to close on March 20th. The tender of Messrs. McCaffrey and McQuigge was the lowest, and the contract was awarded to them. It was originally intended that the tracklaying and ballasting should be done by the Maintenance of Way Department, but it was found advisable to have this done by contract, and an agreement was made by which the tracklaying and ballasting was to be done by the Contractors. It was anticipated that track would be laid to Elk Lake by November 1st, 1912, but the summer of 1912 was exceptionally wet, and there was a great scarcity of labor, greatly interfering with the progress of the work. There were also serious delays in the delivery of rails and bridge materials, so that progress has not been as great as expected, and it is probable that track will not be laid to Elk Lake until January 1st, 1913.

None of the buildings, such as stations, freight sheds, stationmen's houses, etc., will be built until the spring of 1913.

The Jean Baptiste River is crossed by a timber trestle 750 feet long and 65 feet high, and the Montreal River, by a Through Truss Steel Bridge, 225 feet span, with 27 feet clearance above high water.

The following data may be of interest:—

Total Length—Earlton to Elk Lake—28.8 miles.

Maximum Grade—East 0.85 per cent., West 1.0 per cent.

(In future, grades may be reduced to 0.6 per cent. at moderate expenditure.)

Rise—310.2 feet.

Fall—157.2 feet.

Total Curvature:

1°	2°	3°	4°	4 30'	6°
18°04'	39°03'	67°34'	165°47'	80°06'	267°23'.

Degrees of Curvature per mile 22°09'.

Maximum Degree of Curvature 6°.

Stations—Elk Lake Branch.

	Mileage
Earlton	0.
McCool	5.
Kenabeck	10½.
Osseo Siding	14½.
Mountain Chutes	17½.
Wabun	22.
Beacon	25.
Elk Lake	28½.

Porcupine-Sault Ste. Marie Surveys:

Consideration has been given to a proposal that the area between Porcupine and Sault Ste. Marie should be opened up by a railway connecting the T. & N. O. Railway with Sault Ste. Marie.

The area in question is crossed by the main lines of the Canadian Pacific and Canadian Northern Ontario Railways, but has no direct connection with Sault Ste. Marie or Lake Huron ports. A trial line was run from Timmins, the terminus of the Porcupine Branch, southwesterly, as far as the Canadian Northern Ontario Railway. It was found that a satisfactory location could be obtained

that would be an extension of the Porcupine Branch, crossing the Mattagami River at Wawaitin Falls and connecting with the Canadian Northern Ontario Railway at Congden, 52 miles from Timmins. With 6 degree curves and 1 per cent. grades as a maximum, this road could be built for \$22,000.00 per mile. Lower grades and easier curves could be obtained at relatively greater cost of construction.

Only a very small proportion of the land between Porcupine and the Canadian Northern Ontario Railway is fit for agriculture, and the only known resources are the timber. There has been considerable prospecting, but no mineral deposits have been developed.

IROQUOIS FALLS BRANCH.

The Abitibi Pulp and Paper Mills Company, having acquired the Abitibi Pulp Limit from the Ontario Government, proposes to develop the water power at Iroquois Falls on the Abitibi River and erect a pulp mill with a capacity of 150 tons of dry pulp per day. The Iroquois Falls are about $6\frac{1}{2}$ miles from Iroquois Falls Junction on the T. & N. O. Railway, and a branch line of the railway has been located from Iroquois Falls Junction to the site of the proposed pulp mill. Until the Company's plans are farther advanced and the exact location of the mill is definitely fixed the location of the last one-half mile of the branch will be subject to adjustment. As the cost of this last one-half mile will be very much greater proportionately than the rest of the branch, an accurate estimate of the cost cannot be given at present.

JAMES BAY SURVEYS.

The investigations, begun in the previous year, when a small party, under Mr. S. C. Ellis, was sent out from Cochrane to examine the Ontario shore of James Bay, have been continued during the year 1912. These investigations have been divided into:

1. A determination of the best site for a harbor on the Ontario shores of James Bay, by Mr. J. G. McMillan.

2. A reconnaissance for a railway location from Cochrane to Moose Factory, by Mr. W. R. Maher.

Mr. McMillan examined the shore of James Bay from the mouth of the Moose River to the line between the Districts of Nipissing and Algoma. He spent several months at Moose Factory studying the estuary of the Moose River and collecting data in regards to ice, tides, floods, winds, silt, etc., that will be necessary before a harbor and terminal can be designed. Mr. McMillan has returned from Moose Factory and is now preparing a complete report which will be submitted in the near future. In the meantime his assistant was left in charge at Moose Factory to continue the meteorological and hydrographic observations. The information gathered during the year confirms the statement in the last annual report of the Chief Engineer, "That the mouth of the Moose affords the best, if not the only possible site for a harbor on the south and west coasts of James Bay."

Mr. Maher's reconnaissance for an extension of the T. & N. O. Railway from its present northern terminus, at Cochrane, to a tidewater terminal at Moose Factory covered a wide belt between the Mattagami River on the west and the French River on the east. Two general routes are available, the shorter and more direct route is that directly north from Cochrane, closely following the line between Districts of Nipissing and Algoma to the Moose River, thence along the north bank of the river to a tidewater terminus, a total distance of about 170 miles. For a greater portion of its length this route passes through very wet and swampy lands that are not as attractive to the settlers as the better drained lands near the larger rivers.

The longer route crosses the Frederickhouse River northwest from Cochrane and follows north between the Abitibi and Missinaibi Rivers, crossing the Moose River just above the boundary between Nipissing and Sudbury and thence along the north bank of the Moose, a distance of approximately 185 miles. Complete reports of Messrs. McMillan and Maher will not be available before the end of the calendar year, but will be printed as a separate report in conjunction with that of the Mining Engineer whose report printed herein is only preliminary.

GRADE REDUCTION—NORTH BAY TO NEW LISKEARD.

The mainline of the T. & N. O. Railway between North Bay and Cochrane is a natural connecting link, between the Grand Trunk Railway of Eastern Canada and Grand Trunk Pacific Railway of Northern Ontario and Western Canada. That this is so, is manifested by the fact that the G. T. R. has completed agreement with the Commission for the privilege of routing its through, passenger and freight traffic to and from the G. T. P. Railway via the T. & N. O. Railway.

That section of the T. & N. O. Railway between North Bay and New Liskeard was located as a colonization railway and placed under construction before the National Transcontinental was projected. Later when the N. T. C. Railway was decided upon, it became apparent that if the T. & N. O. Railway were to be extended from New Liskeard to a connection with the N. T. C. Railway it would receive from the latter a large volume of traffic in addition to what would be developed with the growth of the country, opened by the T. & N. O. Railway itself. The maximum grades on this new N. T. C. Railway were understood to be 0.4 per cent. against east bound and 0.5 per cent. against westbound traffic, with all grades fully compensated for curvature, the sharpest curves being deg. The same standards of grades and alignment were adopted by the Commission for the extension of the T. & N. O. Railway from New Liskeard to the Transcontinental Railway. As actually located, however, the maximum grades on the National Transcontinental Railway are 0.6 per cent. against westbound traffic, instead of 0.5 per cent. The maximum grade on the T. & N. O. Railway between New Liskeard and Cochrane is therefore slightly less than the maximum grade against westbound traffic on the National Transcontinental Railway.

Uniform and definite maximum grades do not appear to have been adopted or rigidly adhered to at the time of the location and construction of the section between North Bay and New Liskeard. In general, grades in both directions up to 1 per cent. not compensated for curvature, were freely used on all portions of this section while 1.25 per cent. grades not compensated were used in several places between North Bay and the summit in Merrick Township at M.P. No. 23. The ruling grades over the first division, therefore, are equivalent to 1.2 per cent. South Bound, and 1.15 per cent. North Bound when compensated for curvature, curvature as sharp as 6 deg. having been freely used on maximum grades.

The difference between the physical characteristics of the two sections of the Railway is strikingly shown in the following table:

	North Bay to New Liskeard.	New Liskeard to Cochrane.
Distance.....	112.6 miles	140.0 miles
Ruling Gradient—North Bound.....	1.45 %	0.5 %
South Bound.....	1.2 %	0.4 %
Maximum Curvature.....	6	4
Curvature per mile.....	83 18'	27'56'
Tonnage Rating (10 wheel class)—		
North.....	560 tons	1,460 tons
South.....	700 tons	1,710 "
Maximum Tonnage Rating (New Consolidation Class)—		
North.....	1,070 tons	2,700 "
South.....	1,290 "	3,160 "

A very large proportion of the operating expenses necessary to handle a given traffic varies directly as the number of trains it is necessary to operate. Any increase in the trainload, whether resulting from a reduction in the ruling grade or an increase in the power of the locomotives, will reduce the train mileage, and proportionately decrease the operating expenses. In general, it has been well established that capital expenditures on grade reduction are economically justifiable and to be recommended, whenever the resulting reduction in operating expenses is greater than the interests on the capital expenditure.

During the year a series of surveys was completed that had been carried on intermittently since 1906, to determine to what extent it was practicable to reduce the excessive grades between North Bay and New Liskeard. The shorter and lighter of these grades can be reduced without changing the alignment, while the longer and heavier can only be eliminated by rebuilding on a new location, in some cases, at a considerable distance from present right of way. Wherever these diversions have been necessary actual locations have been made and estimates of cost prepared.

The most striking feature of the accompanying profile of the T. & N. O. Railway is what is locally known as the "Merrick Summit," just north of North Bay. The elevation of the North Bay yards at the C. P. R. Junction is 652 ft. above sea level and from Riddle north for 25 miles, the general elevation of the country is approximately 1,000 ft. above sea level. The intervening "Merrick Summit," with an elevation of 1,300 ft. above sea level, is the most serious obstacle to be overcome. In the original location, this summit was crossed by deflecting several miles to the east from North Bay, following the rugged shores of Four Mile Creek, and the North River to the summit. After an exhaustive examination of the country on both sides of the right of way, it was found that a lower grade from North Bay could be obtained by following Duchesnay Creek and the summit could be crossed at an elevation of about 1,170 ft. or about 130 ft. lower than the present summit, connecting with the present line at M.P. No. 35, just north of Riddle. If at all possible, it is desirable, that the ruling grades on the first division should not exceed those on the second division, but it is a physical impossibility to obtain an 0.5 per cent. grade north from North Bay. This diversion, North Bay to Riddle, has been located with maximum curvature of 4 deg., and with maximum grades of 0.8 per cent. northbound and 0.6 per cent. southbound, all compensated for curva-

ture. The cost of construction will not be excessive. The diversion gives the lowest grade that can be obtained from North Bay without swinging the line far to the west to the Sturgeon River Valley. With this diversion as a key to the situation it will be unprofitable to attempt to lower the grades between Riddle and Liskeard below 0.8 per cent. northbound and 0.6 per cent. southbound.

Having adopted these ruling grades, every grade in excess of them between North Bay and New Liskeard was carefully examined. It will not be necessary to reduce a number of the shorter of these grades as they may be operated as momentum grades. The reduction of the grade between New Liskeard and Cobalt from 1 per cent. to 6 per cent. can only be accomplished by a diversion that would pass at a considerable distance from the present station grounds, at Haileybury and New Liskeard. For this reason, it is advisable, for the present, to overcome this grade by means of a helper engine service.

The following summary statements show the proposed method of reducing all grades between North Bay and New Liskeard to a maximum of 0.8 per cent. northbound and 0.6 per cent. southbound:—

TABLE SHOWING REDUCTION OF GRADES—NORTH BAY TO NEW LISKEARD.

Location, mile to mile.		Method of Reducing Grade.	Estimated Cost.
2.	35.	Diversion.....	\$1,482,500
40.	41.2	Train filling	50,120
47.9	48.5	"	25,610
51.7	52.5	"	11,000
57.8	59.	"	39,100
60.4	61.8	"	33,280
62.5	63.3	"	9,200
66.7	73.2	Diversion	367,675
74.5	75.3	Train filling	16,225
90.	94.	Diversion.....	220,000
100.	100.5	Train filling	8,400
101.	112.	Helper Engine Service.....	
Total.....			\$2,263,110

The total length of the North Bay-Riddle Diversion will be thirty miles, replacing thirty-three miles of present line. The curvature on diversion average 71 deg., and on the present line 93 deg. per mile.

The total rise and fall is as follows:

----	Rise.	Fall.
Present main line.....	747	374
Diversion.....	634	258

ACCIDENTS.

The following is a list of the personal injuries relating to Departments under my jurisdiction, occurring during the year:

1911.

December 3rd, Giovanni Rondenelli, laborer, was accidentally killed by train No. 10, at Camp 6, on the Porcupine Branch.

1912.

January 6th, Robert Broughton, machinist, was slightly cut on the forehead and face and had his right arm wrenched by coming in contact with a lathe at which he was working, in North Bay Junction Shops.

January 13th, James Solomon, assistant hostler, Cochrane, was bruised in the leg by the water tank spout while an engine was getting water.

January 16th, John Whitchurch, machinist, North Bay Junction, had his left elbow wrenched while lifting a piece of sheet iron from his stock pile at the General Stores Building.

January 17th, John McIvor, machinist's apprentice, North Bay Junction Shops, was cut in the eye by a steel clipping which flew from a driving box that he was chiselling at the time.

January 25th, Albert Weiss, aged 56 years, sectionman, was struck by train No. 5 at Cobalt, and died there that night.

January 26th, Charles Trounsell, machinist's improver, North Bay Junction Shops, had the first finger of his right hand slightly injured.

February 23rd, Frank Condor, sectionman, was slightly injured in the right leg at M.P. 24½, while attempting to remove his hand car from the track in front of an approaching snow plow.

March 11th, S. M. Barnes, caretaker at Cochrane Station, while clearing snow and ice from the roof of the station, slipped and fell, bruising his body.

March 26th, R. McIlvenna, car repairer, North Bay Junction, was struck on the head by an iron bar which was dropped on him by a fellow employee. The injuries were not serious.

April 12th, Eugene Ricci, laborer, North Bay, was slightly injured in the leg by a piece of flying steel from a cold sett which he was using at the time.

April 20th, John Awer was struck on the shin with the frame of a hand car, at Timmins.

May 3rd, F. Brett, carpenter, North Bay Junction, fell off a ladder sustaining very slight injuries.

May 7th, F. St. Lawrence, carpenter, was injured at M.P. 1531¼ by a stick of timber slipping off the skid and crushing his foot.

May 7th, R. Broughton, machinist, North Bay Junction shops, had two fingers badly cut by a boring mill bar falling on them.

May 30th, Robert Johnston, cableman on ballast train at Iroquois Falls, was badly cut in the leg by the ledgerwood cable.

June 1st, E. O'Leary, extra gang foreman, had his leg slightly injured by the hand car on which he was riding leaving the rails.

June 11th, Ubano Bizzydesr, sectionman, was accidentally struck on the back with a pick by a fellow employee at Redwater. The injury was slight.

June 14th, J. Tarsitano, laborer, was unloading rails at North Bay Junction, when one of them crushed his finger and a small piece had to be amputated.

June 14th, D. J. Bucknell, car repairer, Cochrane, while supplying an engine with water at the tank slipped and fell astride the manhole cover, slightly injuring his thigh and spinal column.

June 19th, William Miller, cableman on ballast train, fell off a ballast car and slightly sprained his leg.

July 12th, W. T. Harwood, painter, North Bay Junction, fell upon a glazing knife, which was protruding from his pocket and made a two-inch cut in his arm.

July 18th, D. Marko, cableman, was run over and instantly killed by a ballast train at Nellie Lake Pit.

July 30th, W. J. Damp, boiler inspector, North Bay Junction, while making inspection, was overcome by heat, and was unable to work for a few days.

July 30th, A. Dachene, car repairer, Nellie Lake ballast pit, was struck by the swinging arm of the cable stretcher and slightly injured in the side.

July 31st, William Booth, car repairer, North Bay Junction, got a bad cut on the head from a piece of falling iron.

August 2nd, G. Cappaducci, laborer, was slightly injured in the back at mileage 247. He was returning from work on a hand car, when the handle broke and threw him in front of the car.

August 20th, Thomas Warner, machinist, North Bay Junction, had his hand caught under the big end of the air compressor and the end of the third finger on his right hand was cut off.

September 5th, Hugh Miller, laborer, was struck by a tie, at mileage 2, Porcupine Branch, and injured in the side.

September 13th, Albert Swartz, steam shovel fireman, Cassidy pit, when in the act of stepping from the running board of the engine, fell against a jack arm and broke three of his ribs.

September 28th, Ernest Dorey, axeman, on Survey at Iroquois Falls, was cut in the leg with an axe.

October 11th, Raphael Natale, laborer, fell off a hand car, at mileage 112 $\frac{1}{4}$, and fractured his leg.

October 18th, M. Felice, extra gang foreman, stepped on a protruding nail at M.P. 151, which caused him to be off duty five days.



Jean Baptiste Trestle.

MOTIVE POWER AND CAR DEPARTMENT

Annual Report for the Year Ended October 31st, 1912, of Mr. T. Ross,
Master Mechanic.

New Rolling Stock.

Consolidation Locomotives.

In June, 1912, four Consolidation type locomotives were received from the Canadian Locomotive Company, Kingston. General description as follows:

Cylinders	23 in. x 30 in.
Steam Pressure	180 lbs.
Diameter of Drivers	57 in.
Weight on Drivers	181,050 lbs.
Total weight	210,600 lbs.
Total Heating Surface	3,300 sq. ft.
Grate area	50 sq. ft.

These engines are capable of hauling 950 tons over the controlling grade north, an increase over the older freight engines of about 58 per cent. They are equipped with superheaters, brick arches, Walschart valve gear, piston valve with outside steam pipes, Westinghouse E. T. 6 brake apparatus, with 8½ inch cross compound pump, Pyle National Electric Headlight. The tenders are equipped with equalized pedestal trucks.

The use of the superheater and brick arch has very noticeably added to the efficiency of the boilers, and these engines are hauling their greater tonnage over the division on practically the same amount of coal as is consumed by the 19 in x 24 in. ten-wheel freight engines previously used in the same service, and at the high price of coal in this district, the saving effected amounts to a considerable sum.

Conductors' Vans

Four new Conductors' Vans have also been received from the Canadian Car and Foundry Company, Montreal. These vans have steel underframes and wooden superstructure, and are numbered 10, 11, 12 and 13.

Steel Passenger Equipment.

During the year no passenger equipment has been ordered, but the investigation of "all steel" cars has been continued. All passenger equipment built for the Commission during the last three years has been fitted with steel underframes, which were the first steel underframe passenger cars to be built for any Canadian Railway. The officials of the Departments find that the early difficulties with "all steel" passenger cars in connection with proper insulation for northern latitudes can be satisfactorily overcome, and specifications have been prepared for "all steel" baggage and passenger cars, so that such new cars as may be required in the future can be of "all steel" construction.

New Shop Machinery.

At North Bay Junction shops the following machinery has been installed:

1 Low pressure half of Duplex Air Compressor, received from the Canadian Band Company.

1 Pneumatic Drill from the Pneumatic Tool Company, Chicago.

1 Locomotive Cylinder boring bar, from the Underwood Company.

At Englehart the following new machinery has been installed:

1 Three-ton Travelling Crane, from the Canadian Rand Company.

1 Three-ton Pneumatic Hoist, from the Chicago Pneumatic Tool Company.

Electrical Work.

The ice house and stockyards at North Bay Junction have been installed with electric lights. The installation of freight shed and yard offices have also been completed, and the electric plant and pole lines have been maintained in good condition throughout the year.

Extra lights have been installed in Cobalt station and telegraph office, and necessary repairs made to electric light system in station and freight shed.

Extra lights have been installed in freight shed and office at Haileybury, and repairs made to installation in station.

At New Liskeard some extra lights have been installed in station, the lighting system having also been gone over and better distribution of light arranged.

Necessary repairs to plant and equipment at Englehart have been made, and extra lights have been installed in Freight Shed and Round House.

Electric wiring in conduit at Matheson Station has been completed.

At Cochrane a new armature has been installed in Exciter, and other repairs made to Electric Plant. The Electric installation in Station has also been completed.

The Station at Schumacher has been installed with electric lights.

At Timmins, the Station, Engine House, Bunk Room, and Section House have been installed with electric light.

In addition to the above work the electric headlights on all engines, snow plows, and wrecking cranes, have been maintained in good condition and ready for service at all times.

The following tabulated statement shows a comparison of the number of kilowatt hours used each month at North Bay, Englehart and Cochrane, during the years 1910, 1911, and 1912.

Month.	NORTH BAY.			ENGLEHART.			COCHRANE.		
	1910.	* 1911.	1912.	1910.	1911.	1912.	1910.	1911.	1912.
January	4,557	5,261	8,574	6,368	6,160	6,590	.....	1,251	3,034
February ...	3,479	4,168	6,225	4,988	5,316	5,785	.....	913	3,714
March	3,016	3,018	5,684	4,635	6,539	4,834	200	936	4,521
April	2,480	2,227	3,427	4,422	3,669	5,100	22	609	619
May	1,761	1,750	2,934	3,762	5,743	4,029	.....	663	471
June	1,444	2,250	3,119	2,928	3,662	2,476	.....	287	353
July	1,537	2,268	2,343	2,810	3,779	2,055	.....	603	435
August	1,628	2,042	3,000	3,054	4,243	2,848	.....	754	530
September ..	2,484	3,091	4,133	3,718	4,890	4,570	.....	1,044	691
October	3,092	4,859	6,260	4,366	6,277	6,963	.....	1,663	871
November ...	4,139	7,134	.....	4,361	7,551	.....	687	1,757	.....
December ..	4,561	9,280	.....	5,898	6,304	.....	1,596	2,223	.....
Total	34,178	47,348	45,699	51,310	64,133	45,250	2,505	12,703	15,239

New Equipment Applied Locomotives and Cars.

Since last report Coaches numbers 24 and 42 have been equipped with Pintsch Gas Lighting System.

Some alterations and additions were made in lockers, etc., in Parlor Cafe Cars Seseikinika and Tetapaga, in order to afford more efficient accommodation.

New Air Brake Equipment.

During the year 1912, the air brake equipment on fifty-six coaches, three hundred and sixty-four freight cars, and all locomotives in service have been cleaned, repaired and tested, as per Master Mechanics' and Master Car Builders' Rules.

Schedule L. N. Brake Equipment has been installed on the following passenger cars:—

First Class Coaches number 104, 108, 111, 112, and 113.

Second Class Coaches number 4, 40, and 42.

Workmen's Cars number 8, 24, 30, and 38.

Baggage Cars number 9 and 21.

Combination Second Class and Baggage Car number 12.

The trucks on the above cars have been thoroughly overhauled, all foundation brake gear strengthened, and high speed brake beams applied, to stand the extra strain of the high speed brake. This equipment is the most efficient brake for passenger service.

Engines 108 and 113, have been equipped with the Schedule E. T. brake, to work in unison with the L. N. Passenger car brake, and is the most efficient locomotive brake known.

Engines 103, 104, 105, 106, 124, and 123, have been equipped with Schedule S. W. A. brake, in addition to the plain Automatic. This equipment will greatly facilitate switching in way freight service.

The necessary attachments have been added to our improved Triple Testing Rack, which will enable us to test the No. 6 Distributing valves of the E. T. Brake. With the addition of these fixtures we are in a position to test all classes of triple valves used in connection with the Westinghouse Air Brake.

The tenders of engines 112 and 114, have been equipped with the American Automatic Slack Adjuster. This will give uniform piston travel which is one of the essential requirements of good brake service.

All passenger cars going through the repair shop are being equipped with Centrifugal Dirt Collectors, the result accomplished is that the use of the collector operates to reduce materially the work of cleaning and oiling the air brake equipment.

We expect, in the early part of 1913, to have all our passenger engines, and sufficient coaches equipped with the Schedules E. T. and L. N. brakes, to increase the standard brake pipe pressure from seventy to ninety pounds. This, in addition to the increased size of brake cylinder installed, makes it possible to use the

equipment as a High Speed Brake when carrying ninety pounds brake pipe pressure, and obtain better results than when using one hundred and ten pounds with the old standard equipment.

If then, a more powerful brake is desired, it can be obtained by simply increasing the brake pipe pressure.

Summary of Extensive Repairs on Locomotives, etc.

During the year the Motive Power Equipment has been properly maintained, and the repairs and renewals necessary from time to time have been executed thereon.

Extensive repairs have been performed on Locomotives at North Bay Junction Shop as follows:—

Engine No. 111, general repair, engine and tender repainted, during November, 1911.

Engine No. 123, general repair and new boiler tubes, during November, 1911.

Engine No. 101, light repair, due to accident, November, 1911.

Engine No. 124, light repair, during November, 1911.

Engine No. 151, general repair and new boiler tubes, during November, 1911.

Engine No. 108, heavy repairs during November, 1911.

Engine No. 119, light repairs to tender, due to accident, during November, 1911.

Engine No. 132, light repairs due to accident during November, 1911.

Engine No. 122, general repair and new boiler tubes, during December, 1911.

Engine No. 127, light repairs, during December, 1911.

Engine No. 125, general repairs and new boiler tubes, January, 1912.

Engine No. 130, light repairs during January, 1912.

Engine No. 120, heavy repairs and new boiler tubes, January, 1912.

Engine No. 150, light repairs during January, 1912.

Engine No. 129, general repair and new boiler tubes, January, 1912.

Engine No. 153, front end repairs during January, 1912.

Engine No. 116, heavy repairs during January, 1912.

Engine No. 113, general repairs and new boiler tubes, February, 1912.

Engine No. 106, general repairs and new boiler tubes, March, 1912.

Engine No. 109, heavy repairs during March, 1912.

Engine No. 124, general repair and new boiler tubes, March, 1912.

Engine No. 105, light repairs, damaged in accident, March, 1912.

Engine No. 150, general repair and new boiler tubes, April, 1912.

Engine No. 132, General repair and new boiler tubes, May, 1912.

Engine No. 131, general repair and new boiler tubes, May, 1912.

Engine No. 103, light repair in May, 1912.

Engine No. 110, general repair during June, 1912.

Engine No. 128, light repair in June, 1912.

Engine No. 114, general repair and new boiler tubes, July, 1912.
 Engine No. 123, heavy repairs due to accident, July, 1912.
 Engine No. 112, general repair and new boiler tubes, August, 1912.
 Engine No. 135, light repairs in August, 1912.
 Engine No. 152, general repairs and new boiler tubes, September, 1912.
 Engine No. 136, light repairs due to accident, September, 1912.
 Engine No. 104, heavy repairs during September, 1912.
 Engine No. 108, general repairs and new boiler tubes, October, 1912.
 Engine No. 121, general repair, due to accident, October, 1912.
 Engine No. 122, light repair during October, 1912.
 Engine No. 115, general repair during October, 1912.

NOTE: The term "General Repair" as used above, refers to cases where an engine has received a thorough overhauling and rebuilding. "Heavy Repair" refers to cases where engines have been given such repairs as driving tires turned, driving boxes renewed, valves, piston rings and side rod bushings renewed; "Light Repair" refers to cases where an engine has received minor repairs such as renewing side rod bushings, piston rings and valve rings.

Each engine has had the boiler washed out once every two weeks when in regular service. Staybolts in fire boxes have been regularly tested and renewals have been made when necessary. Nettings, ash-pans and dampers have been regularly examined at the end of each trip during the summer season, as a precaution against fire. During damp weather and at such times as the danger from this source is reduced to a minimum and nettings, ash-pans, and dampers have been examined twice a week.

Engine Dispatch.

Statement showing the number of engines dispatched from the different terminal and divisional points during the year:—

Stations	Number of Engines Dispatched.
North Bay Junction	5,982
Cobalt	321
Englehart	3,844
Cochrane	1,064
S. Porcupine and Timmins	1,056
Total	12,267

The Motive Power Equipment has been generally assigned during the year as follows:—

Engine No. 101, work service.
 Engine No. 102, freight service.
 Engine No. 103, work service.
 Engine No. 104, work service.
 Engine No. 105, work service.
 Engine No. 106, freight service.

Engine No. 107, passenger service.
Engine No. 108, passenger service.
Engine No. 109, work service.
Engine No. 110, passenger service.
Engine No. 111, passenger service.
Engine No. 112, passenger service.
Engine No. 113, passenger service.
Engine No. 114, passenger service.
Engine No. 115, freight and switching service.
Engine No. 116, freight service.
Engine No. 117, freight and passenger service.
Engine No. 118, switching and freight service.
Engine No. 119, work service.
Engine No. 120, freight service.
Engine No. 121, freight service.
Engine No. 122, freight service.
Engine No. 123, freight service.
Engine No. 124, freight service.
Engine No. 125, work service.
Engine No. 126, work service.
Engine No. 127, switching service.
Engine No. 128, passenger service.
Engine No. 129, freight service.
Engine No. 130, freight service.
Engine No. 131, freight service.
Engine No. 132, freight service.
Engine No. 133, passenger service.
Engine No. 134, passenger service.
Engine No. 135, passenger service.
Engine No. 136, passenger service.
Engine No. 137, freight service.
Engine No. 138, freight service.
Engine No. 139, freight service.
Engine No. 140, freight service.
Engine No. 150, switching service.
Engine No. 151, switching service.
Engine No. 152, switching service.
Engine No. 153, switching service.

Locomotive Mileage.

The following statement shows the mileage made by the locomotives belonging to this Railway:—

Engine Number.	Miles Run, 1912.	Total Mileage of Engines.
101	30,008	251,058
102	36,175	232,779
103	24,008	213,489
104	29,113	227,379
105	20,956	173,788
106	29,401	182,476
107	38,857	189,678
108	29,832	232,846
109	9,128	226,701
110	33,790	193,503
111	30,348	250,345
112	32,103	252,149
113	32,579	254,935
114	32,310	255,578
115	30,571	145,325
116	30,095	135,950
117	33,807	139,258
118	33,765	152,747
119	32,639	153,163
120	31,974	146,335
121	26,952	126,624
122	28,199	136,337
123	22,428	125,049
124	18,648	111,493
125	24,691	140,503
126	31,106	124,108
127	30,470	112,945
128	32,722	112,703
129	24,747	94,149
130	32,366	67,543
131	25,170	100,292
132	30,833	97,779
133	24,502	30,364
134	48,046	62,390
135	38,711	52,853
136	44,578	54,851
137	11,371	11,371
138	5,716	9,716
139	2,096	2,096
140	6,544	6,544
150	26,165	166,794
151	35,961	227,722
152	23,470	77,462
153	33,151	83,866
Total	1,234,102	6,150,626

Repairs to Passenger Equipment.

Extensive repairs have been made to passenger equipment at North Bay Junction shop as follows:—

Coach No. 24, shopped during December, 1911, and given a general repair, having trucks rebuilt and car thoroughly overhauled, repainted and varnished.

Coach No. 8, given a general repair, repainted and varnished both interior and exterior, during December, 1911.

Baggage car No. 9, given a general repair, repainted and varnished, during January, 1912.

Coach No. 42, had trucks rebuilt, body repaired, repainted and varnished and turned out in February, 1912.

Coach No. 113, trucks were rebuilt, body repaired, repainted and varnished, during the month of February, 1912.

Coach No. 4, given a general repair, repainted and varnished and turned out during March, 1912.

Baggage car No. 21, given thorough overhaul, was repainted and varnished and turned out during April, 1912.

Coach No. 38, trucks rebuilt, body repaired, repainted and varnished during May, 1912.

Coach No. 104, given general repair, repainted and varnished in June, 1912.

Coach No. 108, given a general repair, repainted and varnished and turned out in July, 1912.

Coach No. 12, was rebuilt into a Combination Second Class and Baggage car. This was originally a Second Class coach.

Baggage car No. 11, given a general repair, was repainted and varnished and turned out during August, 1912.

Exhibition car, this car was thoroughly overhauled and necessary repairs made, and was also revarnished during September, 1912.

Coach No. 112, was given a general repair, trucks rebuilt, repainted and varnished and turned out in September, 1912.

Coach No. 10, taken into shop in October and given a general repair, was repainted and varnished.

Official Cars.

Necessary repairs have been made from time to time on the Official cars "Sir James" and "Temagami." The "Sir James" was taken into shop during October to have a thorough overhauling, and will be repainted and varnished, and will also have the Stone Electric Lighting System installed before leaving the shop.

Coach Cleaning.

Statement showing the number of coaches cleaned at the different stations during the year:—

Station.	Number of Coaches Cleaned.
North Bay Junction	2,085
Englehart	5,058
Cochrane	2,979
S. Porcupine and Timmins	2,964
Total	13,086

Repairs to Conductors' Vans.

Conductors' vans Nos. 51, 69, 52, 64, 58, 63, 53, 56, 59, 59, and 67, have been overhauled and necessary repairs made, besides being repainted. The following vans have been supplied with new storm sash: Vans Nos. 51, 52, 58, 53, 57, 54, 55, 62, 68, 60, 63, 66, 59, 65, 69, and 56.

Repairs to Freight and Work Equipment.

The following cars have been rebuilt during the year: Nos. 60279, 60473, 60649, 60125, 60757, 60185.

New sills have been applied to seventy-three cars.

Fifty-five flat cars have been re-decked.

Bills collectible covering the cost of repairs to foreign cars have been rendered monthly against car owners, in accordance with the Standard Code of Rules governing the conditions of repairs to freight cars, for the interchange of traffic, adopted by the Master Car Builders' Association. In addition to this a bill has been rendered monthly against the Grand Trunk Railway System, covering cost of repairs to cars under the terms of the Grand Trunk Terminal Agreement, at actual cost of labor and material, plus ten per cent.

Steam shovels, lidgerwoods, snow plows, snow flangers, etc., have all had necessary repairs made. Snow plows Nos. 2, 3, and 4 have been repainted. Steam shovels and lidgerwoods, have all received one coat of paint and have been relettered.

Steel Tires Turned and Wheels Applied Rolling Stock.

During the year fifty-seven pairs of driving tires, seventy-four pairs coach tires, fifty pairs fender wheels, and twenty-two pairs engine truck tires have been turned on the wheel lathe installed at North Bay Junction shop, together with five pair wheels for the Nipissing Central Railway, and one driving tire for Contractor O'Brien. The following tires also, were bored out before being applied to wheels: twenty-six driving tires, forty-six coach tires and sixteen tender tires.

Since the new wheel press and wheel lathe have been installed at Englehart, in the month of March, 1912, nine hundred and thirty-seven wheels have been pressed off axles, new wheels bored out and remounted on axles. Forty-two pairs of tires have been turned in wheel lathe.

New wheels have been applied to rolling stock as follows:—

To Locomotives.

Two pair cast iron wheels mounted on $3\frac{3}{4}$ x 7 in. axles.

Seventy-two pair cast iron wheels mounted on 5 x 9 in. axles.

One pair steel-tired engine truck wheels.

Six 50 in. driving tires; six 62 in. driving tires; four 69 in. driving tires; and six 57 in. driving tires; also nineteen steel tires for tender truck wheels.

To Passenger Equipment.

Four pair steel-tired wheels mounted on $3\frac{3}{4}$ x 7 in. axles.

One pair steel-tired wheels mounted on $4\frac{1}{4}$ x 8 in. axles.

Two pair steel-tired wheels mounted on 5 x 9 in. axles.

Fifty 36 in. steel tires.

To Freight Equipment.

Thirty-six pairs 33 in. cast iron wheels mounted on $3\frac{3}{4}$ x 7 in. axles.

Five Hundred and Sixty-six pairs 33 in. cast iron wheels, mounted on $4\frac{1}{4}$ x 8 in. axles.

One hundred and sixty-four pairs 33 in. cast iron wheels mounted on 5 x 9 in. axles.

Eighty-nine pairs 33 in. cast iron wheels mounted on $5\frac{1}{2}$ x 10 in. axles.

To Snow plows.

Two pairs 30 in. cast iron wheels mounted on $4\frac{1}{4}$ x 8 in. axles.

To Work Equipment.

Thirty-seven pairs 33 in. cast iron wheels mounted on $4\frac{1}{4}$ x 8 in. axles.

Three pairs 33 in. cast iron wheels mounted on 5 x 9 in. axles.

Rolling Stock Destroyed.

C. P. R. car No. 25727 was destroyed at Cochrane, January 3rd, 1912.

Pere Marquette car No. 31690 was destroyed by wreck at Mileage 16¼, June 16th, 1912.

G. T. P. car No. 302495, was destroyed by wreck at M. P. 122¾, August 7th, 1912.

G. T. P. car No. 301824, was destroyed at Riddle, by collision, August 8th, 1912.

I. & N. car No. 92517, was destroyed at Riddle, by collision August 8th, 1912.

J. B. car No. 21349, was destroyed by accident in North Bay Junction yard, October 15th, 1912.

All salvage in connection with the above cars has been returned to owners, and credit has been allowed this railway, as per rules of the Master Car Builders' Association.

T. & N. O. car 60182 was destroyed on the C. M. & St. P. Railway, June 15th, 1912. Bill has been rendered against the above company for full depreciated value of this car.

Carpenter Shop.

The following miscellaneous articles have been manufactured and turned out of the carpenter shop at North Bay Junction.

Thirty-four gang planks for stations.

Eighty-four transfer cases.

Seven ladders for stations.

5,450 stakes for Engineering Department.

18 baggage and hand car trucks have been repaired.

514 wooden frames for notices, mirrors, etc.

1 ticket case for Haileybury.

1 set pigeon holes and drawers for yard office, North Bay Junction.

3 cable boxes made and painted.

2 bulletin boards.

6 pickets and 3 levelling boards made for Engineering Department.

2 dump carts repaired.

56 cattle guards made for Road Department.

1 frame made for rail bender, for Road Department.

Repairs made to 91 hand cars, ten speeders, and eighteen lorries rebuilt.

2 extra gang tool boxes and 6 small boxes for sections made.

1 desk for Superintendent's office.

1 sign for freight office.

1 ice box for South Porcupine.

1 draughting table made for Mechanical Draughting Room.

3 linemen's tool boxes made.

1 cupboard made for yard office.

1 laundry box made for South Porcupine.

1 book case made for Chief Engineer's office.

1 cabinet made for Dispatcher's office.

1 table made for Accountant's office.

2 benches made for yard office.

1 draughting table made for Porcupine Survey.

- 2 car pilots made for Nipissing Central Railway.
- 1 case made for machine shop.
- 1 cab built for engine 123.
- 10 new pilots for locomotives.

Pattern Making.

During the year there have been one hundred and forty-two patterns made at the railway's shops at North Bay Junction, for repairs and renewals to the different parts of the locomotives, freight and passenger cars, snow plows, shop machinery and other equipment. All patterns are the property of the railway, and a proper record is kept of the location of same.

Lumber Report.

There have been forty-three car-loads of lumber received during the past

year	408,898	feet.
Lumber used by Buildings Department	217,580	"
Lumber used by Mechanical Department	122,479	"
Total amount of lumber used	340,059	"
Total amount of lumber handled	748,957	"

The following is distribution of lumber used in repairing rolling stock:—

Used for Locomotives.

Pine	5,080	ft.
Oak	8062	ft.
Spruce	3,540	ft.
Birch	543	ft.
Whitewood	170	ft.
Fir	45	ft.
Total	17,440	ft.

Used for Passenger Equipment.

Pine	3,226	ft.
Oak	14,404	ft.
Whitewood	5,644	ft.
Birch	1,187	ft.
Maple	114	ft.
Ash	14	ft.
Cherry	21	ft.
Total	24,610	ft.

Used for Freight Equipment.

Pine	13,550	ft.
Oak	7,494	ft.
Spruce	48,203	ft.
Birch	2,331	ft.
Fir	537	ft.
Total	72,115	ft.

Used for Miscellaneous Equipment.

Pine	4,357 ft.
Oak	2,481 ft.
Spruce	182 ft.
Birch	331 ft.
Fir	450 ft.
Whitewood	513 ft.
Total	8,314 ft.
Grand Total	122,479 ft.

The motive power, rolling stock and equipment of this railway at present consists of the following:—

- 40 road locomotives.
- 4 switching locomotives.
- 3 official cars.
- 14 first class coaches.
- 15 second class coaches.
- 1 combination second class and baggage car.
- 1 exhibition car.
- 3 parlor cafe cars.
- 5 baggage and express cars.
- 5 mail and express cars.
- 23 conductors' vans.
- 10 stock cars.
- 147 box cars.
- 98 steel underframe flat cars.
- 365 wooden underframe flat cars.
- 12 steel drop bottom dump cars.
- 17 Hart convertible cars.
- 3 snow plows.
- 3 snow flangers.
- 3 right hand ballast plows.
- 3 left hand ballast plows.
- 3 centre ballast plows.
- 1 Jordan ballast spreader.
- 1 centre ballast spreader.
- 1 pile driver.
- 1 American railroad ditcher.
- 2 steam cranes.
- 3 steam shovels.
- 3 lidgerwood rapid unloaders.
- 2 auxiliary boarding cars.
- 2 auxiliary tool cars.
- 2 Road Department tool cars.
- 2 crane cabin cars.
- 2 road cabin cars.
- 1 pile driver tank car.
- 6 boarding cars.



1. Camp near ballast pit, Elk Lake Branch.
2. Clay cut at Jean Baptiste Trestle.
3. Grade out of pit looking towards Elk Lake.
4. Fill east of ballast pit, Elk Lake Branch.

ANNUAL REPORT, ROAD DEPARTMENT TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION

WM. YOUNG, GENERAL ROADMASTER.

Year Ended October 31st, 1912.

Maintenance of Track.

First Division, North Bay to Englehart.

The tie renewals increased 5 per cent, over those of the year 1911, and the estimates for 1913 indicate a further increase. This is largely on account of it being the limit of life of the original ties when track was first laid.

The rail renewals decreased 68 per cent., although about the same quantity should have been used as in the year 1911. The decrease is due to the fact that the Algoma Steel Co., could not possibly fill the order placed with them which means that the quantity will need to be greatly increased for the year 1913.

Second Division, Englehart to Cochrane, Including Branches.

Tie renewals have increased 62 per cent, over the year 1911, and a further increase is indicated for the year 1913, for the same reason as given above respecting renewals on First Division.

Rail renewals have been practically nil, excepting for a few broken ones.

Labour.

The labor question has been a hard problem, the demand greatly exceeding the supply, and with the average wage paid by railways in general being very much lower than that paid by contractors, the railways were forced to get along with an inferior class of extra men. The strength of section gangs was increased from three to five and six men early in the open season, but a decrease in the earnings demanded retrenchment, with the result that section gangs were reduced during the month of June to three men. This was a decided drawback to the efficient maintenance of track, consequently help had to be drawn from extra gangs in a great many cases, thus bringing up the work in arrears and at the close of the fiscal year the track over the entire line was in good condition.

New Steel Laid

From M.P.	To M.P.	Miles.	Description	Makers.
48.25	49.82	1.57	A.S.C.E. 80 pounds.	Algoma Steel Co. Year 1910
49.82	50.22	0.40	" "	Algoma Steel Co. Year 1909
		1.97		

Old Steel Released

48.25	50.22	1.97	A.S.C.E. 80 pounds.	Cammell, Sheffield, England, Year 1903.
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No new steel received for renewals purposes during the year.

The best of the released rail, known as No. 1 quality, were used for renewals at other points in main line track and the second quality for new side tracks. In this way the main line is given the benefit of new rail.

Rail Removed from Track. Account, Failures and Wear.

Description and Remarks.	No. Rails.	Lin. feet.	Make.
Clean break—cause unknown	58	1,900	Cammell.
	26	858	Algoma.
Damaged by bad wheels.....	3	95	D.L. & S.
Damaged by wreck.....	3	99	Cammell.
Broken head and web at end, cause unknown	1	33	Cammell.
	2	66	Cammell.
Old flaw in web	1	33	D.L. & S.
	1	33	Algoma.
Old flaw in base.....	5	165	Cammell.
	5	165	Algoma.
Old flaw in base and web	2	66	Cammell.
Half moon break in base	1	33	Algoma.
Wear			
Half moon break in base	13	429	Cammell.
Surface bent.....	1	33	Cammell.
Split head.....	92	3,034	Cammell.
Split head with seam.....	25	819	Cammell.
	2	64	Algoma.
Crushed head.....	84	2,770	Cammell.
	3	99	Algoma.
Crushed head with seam.....	19	627	Cammell.
Break through base and web.....	1	33	Cammell.
	348	11,454	

Cross Ties Used.

	First and second quality.	Culls.
Renewals, Main Line, First Division	64,567	.....
“ Second Division	20,202	.....
“ Sidings, First Division	4,907	3,027
“ Second	735	80
“ Private sidings (B.C.).....	.....	114
Extra ties, Main Line, First Division	593	.....
“ Second Division.....	2,084	.....
“ Sidings First .....	.....	171
“ Main Line and sidings, Porcupine Branch... ..	806	.....
New T. & N. O. Ry. sidings	20,348	143
New private sidings	1,551	454
New Main and second main tracks	6,890	.....
Supplied to Nipissing Central Railway for extensions at Haileybury and New Liskeard	13,912	.....
Supplied for construction of Elk Lake Branch.....	38,253	.....
Totals	174,848	3,989

Sets of Switch Ties Used.

	For No. 8 frog.	For No. 10 frog.
Renewals, First Division	18	2
“ Second	11	.....
New T. & N. O. Ry. sidings	42	7
New private sidings.....	12	.....
Renewals in private sidings (B.C)	1	.....
Total	84	9

NOTE.—Set of switch ties for No. 8 frog or turn-out contains 535 lineal feet 7 in. x 9 in. timber, and for No. 10 frog, 580 lineal feet.

Sidings Laid and Extended.

Location.	Description.	Purpose.	Service.	Length.
North Bay—				feet.
Eastwards	Nipissing Junction Spur	Main Line	G.T.R.	10,791
	Short ladder track, sidings 12 to 17, east yard	Freight.....	Joint	512
	Long sorting siding, east yard	"	"	2,733
	Crossover west end siding No. 20 to main line, east yard	"	"	194
	Siding No. 21 extended at east end and connected with Nipissing Junction Spur, thus forming main line through east yard....	Main Line	G.T.R.	410
	Crossover from east main line to long sorting siding.....	Freight.....	"	199
	New main line through west yard to C.P.R. Junction	Main Line	Joint	2,584
	T. & N. O. transfer siding, west yard	Freight.....	"	2,212
	C.P.R. (laid by C.P.R.)	"	"	2,223
	New ice house siding, west yard	Iceing	"	1,154
	Coach siding No. 1, west yard	Coaches	"	1,521
	" " No. 2, "	"	"	1,075
	Cattle pen siding, west yard	Stock.....	"	1,191
	Crossover car repair siding to coach siding No. 1, west yard.....	Car repairs ...	"	188
	Car repair siding extended, west yard.....	"	"	876
	Cinder loading spur extended, west yard...	Rd. house....	"	43
	Canadian Northern Ry., transfer No. 1, east yard (lead only).....	Construction ..	C.N.R.....	206
	Canadian Northern Ry., transfer No. 2, east yard (lead only).....	"	"	206
Regina St.	Freight shed spur No. 1	Freight	Joint	635
North Bay	" " 2	"	"	479
	" " 3	"	"	643
	Town siding No. 1 (track No. 4).....	"	"	440
	" " 2 (track No. 5).....	"	"	723
M. P. 48 $\frac{1}{2}$...	Spanish River Pulp Co.'s spur	Pulp	Private....	772
Redwater...	Through siding extended.....	General	T. & N. O. ..	268
M. P. $\frac{3}{4}$ Kerr Lake Bran.	Princess Mine siding	Mining	Private....	385
M. P. 104 $\frac{3}{4}$...	Nipissing Central Connection	Freight	T. & N. O. ..	168
North Cobalt	Messrs. McCamus & McKelvie's siding	Lumber	Private....	253
" "	Northern Lumber Co.'s siding	"	"	703
M. P. 109 $\frac{3}{4}$...	Transfer siding to Nipissing Central Ry. ..	Freight.....	T. & N. O. ..	867
" "	Second track, Haileybury to New Liskeard, for Nipissing Central Railway, (Connecting Haileybury and Liskeard spurs)	General	N. C. R.	8,898
Liskeard ...	Wabi Iron Works siding	Foundry	Private....	879
" "	Hogg & Lytle's siding	Supplies	"	582
" "	McChesney's siding	Lumber	"	306
M. P. 114 ...	Messrs. McKnight & Jones' siding.....	Pulp	"	375
M. P. 120 ...	New spur siding, Long Lake	Freight.....	T. & N. O. ..	1,255
Charlton...	New spur siding	Pulp	"	251
Wabewawa...	Lucky Cross Mine siding	Mining	Private....	333
Swastika ...	Town spur extended for Knight Bros	Supplies	"	369
Cochrane ...	New coal siding east of coal chutes	Coal.....	T. & N. O. ..	524
" "	Cinder loading spur	Rd.-house....	"	313
Porcupine Branch				
Kilburn ...	Nickel Deposits Co.'s siding (Mr. Pullen) ...	Mining	Private....	365
Tinminis ...	Through siding No. 1	General	T. & N. O. ..	1,630
" "	" " No. 2	"	"	1,140
" "	Town siding	Freight	"	940
" "	Coach siding, No. 1	Coaches	"	1,000
" "	" " No. 2	"	"	880
" "	Engine shed siding No. 1	Engines	"	625

Sidings Laid and Extended. Porcupine Branch—Continued.

Location.	Description.	Purpose.	Service.	Length.
Timmins ...	Engine shed siding No. 2.....	Engines	T. & N. O. ..	490
"	Cinder pit siding	"	" ..	560
"	Coal trestle track	Coaling	" ..	1,000
"	South leg of Wye	Turning	" ..	1,000
"	North " "	"	" ..	1,093
"	Tail of Wye	"	" ..	435
"	Main Line of Porcupine Branch extended ...	General	" ..	2,600
Total feet				62,479

62,479 feet.....11.83 miles.

Sidings Shortened and Taken up.

Location.	Description.	Purpose.	Service.	Length.
North Bay..	Yard spur siding, east yard, No. 13—shortened.	Freight..	Joint	Feet. 208
" ..	" " No. 14, east yard— " ..	" ..	" ..	290
" ..	" " No. 15, " — " ..	" ..	" ..	59
" ..	Through " " No. 16, " — " ..	" ..	" ..	157
" ..	East ladder track—shortened.....	" ..	" ..	104
" ..	Coach siding—shortened	Coaches .	" ..	217
" ..	Car Repair siding—shortened	Car Rep's	" ..	313
" ..	Truck storage spur— "	" ..	" ..	13
M. P. 20.3..	Old Delaplante Lumber Co.'s spur—taken up....	Lumber .	Private..	1,253
M. P. 28....	" Ferguson & McFadden log spur— "	" ..	" ..	820
M. P. 30½...	" " " " — " ..	" ..	" ..	973
Jocko.....	" Mason and Gordon " — " ..	" ..	" ..	550
Redwater...	North Leg of old Wye—taken up.....	Turning .	T. & N. O.	826
" ..	South " " and tail—taken up.....	" ..	" ..	1,017
Kerr Lake	Branch—			
M. P. 3.....	Cobalt Hydraulic Air Compressor Co.'s spur—taken up.....	Power...	Private..	292
Cobalt.....	Dynamite delivery siding—taken up	Freight..	T. & N. O.	300
" f.....	Cobalt Light and Power Co.'s spur (Old Clev-Cobalt Mine spur)—taken up	Power...	Private..	431
M. P. 109¾..	Haileybury Spur shortened at north end to connect with double track	N.C.R ..	T. & N. O.	78
M. P. 126.2.	Drew & Taplin old pulp spur—taken up.....	Pulp	Private..	420
M. P. 126.8.	Old Michigan Sulph. Fibre Co.'s pulp spur—taken up.....	" ..	" ..	229
Earlton Pit.	Ballast pit tracks—shortened	Ballast..	T. & N. O.	5,957
M. P. 137.6.	Old material siding and pulp spur—taken up...	Pulp	" ..	981
M. P. 169½..	Abandoned pit tracks—taken up.....	Ballast..	" ..	3,452
M. P. 181 ..	" " " — " ..	" ..	" ..	2,500
Matheson ...	Old coal dock spur — "	Coaling..	" ..	497
" ..	" engine shed spur No. 1—taken up.....	Engine ..	" ..	378
" ..	" " " No. 2— " ..	" ..	" ..	261
" ..	" spur north of engine shed "	" ..	" ..	672
Kelso	Town siding No. 2—taken up	Freight..	" ..	539
"	Private warehouse spur—taken up	" ..	Private..	915
"	Through siding east of main line—shortened...	General..	T. & N. O.	99
Total feet				24,801

24,801 feet..... 4.69 miles.

Sidings Under Construction at End of Year

Location.	Description.	Purpose.	Service.	Length.
North Bay ..	New material yard siding T. & N. O.	Material ...	T. & N. O.	
M. P. 110 $\frac{3}{4}$..	New York & Pennsylvania Pulp Co's spur	Pulp	Private.....	
M. P. 151 ...	New through siding.....	General ...	T. & N. O.	

New Under Culverts

Location.	Size.	Length.	Description.	Purpose.
North Bay ..	12 inches	50 feet	Corrugated Iron Pipe	Under new material siding.
.. ..	15 ..	30 ..	.. ..	.. ..
.. ..	20 ..	60 ..	.. ..	.. ..
M. P. 48.5 ..	15 ..	36 ..	.. ..	and main line.
North Cobalt	15 ..	20 ..	.. ..	Under new siding, Pulp Co.
.. ..	12 ..	120 ..	.. ..	Under N. C. extention.....
.. ..	15 ..	20 ..	.. ..	Under Northern Lumber
M. P. 110.02	24 ..	14 ..	.. ..	Co.'s new siding.
M. P. 110.25	20 ..	25 ..	.. ..	Under N. C. connection.
M. P. 110.50	20 ..	19 ..	.. ..	Extended under second
M. P. 110.75	20 ..	19 ..	.. ..	track.
.. ..	24 ..	16 ..	.. ..	.. ..
M. P. 110.78	20 ..	14 ..	.. ..	.. ..
M. P. 111.01	30 ..	16 ..	.. ..	.. ..
M. P. 111.07	24 ..	16 ..	.. ..	.. ..
M. P. 111.24	30 ..	16 ..	.. ..	.. ..
M. P. 111.25	30 ..	30 ..	.. ..	.. ..
Liskeard ...	15 ..	130 ..	.. ..	Under Wabi Iron Works
.. ..	12 ..	30 ..	.. ..	siding.
.. ..	15 ..	60 ..	.. ..	Under Hogg & Lytle's sidg.
M. P. 1131 ..	30 ..	48 ..	.. ..	.. ..
M. P. 116 ...	10 ..	30 ..	.. ..	Under main line.
M. P. 120 ...	15 ..	26 ..	.. ..	.. ..
				Under McKnight & Jones'
				siding.

New Side Culverts.

Location.	Size.	Length.	Description.	Purpose.
M. P. 4½....	10 inches	30 feet	Corrugated Iron Pipe	Private crossing converted to Public crossing.
M. P. 4½....	20 "	60 "	" " "	Private crossing converted to Public crossing.
M. P. 110.30	20 "	275 "	" " "	Side ditch, second track.
M. P. 110.50	10 "	56 "	" " "	Public road crossing.
M. P. 110.52	10 "	30 "	" " "	Side ditch, second track.
M. P. 110.56	10 "	20 "	" " "	" " "
M. P. 110.75	10 "	60 "	" " "	" " "
M. P. 110.75	10 "	36 "	" " "	Private crossing moved.
M. P. 111.10	15 "	226 "	" " "	Side ditch, second track.
M. P. 111.25	10 "	300 "	" " "	" " "
Liskeard ...	15 "	78 "	" " "	Broadwood Ave. crossing.
Uno Park ..	10 "	90 "	" " "	Side ditch, section house grounds.
M. P. 120....	20 "	30 "	" " "	Farm crossing.
M. P. 127½..	12 "	30 "	" " "	Public crossing moved.
M. P. 127¾..	15 "	30 "	" " "	Farm crossing.
M. P. 128½..	30 "	180 "	" " "	Side ditch, east side main line.
M. P. 128½..	30 "	150 "	" " "	Side ditch, west side main line.
Kelso.....	12 "	72 "	Concrete Pipe	Public crossing moved.
North Bay..	12 "	35 "	Corrugated Iron Pipe	Under roadway to General Stores.
North Bay..	10 "	20 "	" " "	Under roadway to General Stores.

New Tile Drains.

Location.	Size.	Length.	Description.	Purpose.
M. P. 73.41.	6 inches	864 feet	Vitrified Tile	Underdrainage cuttings.
M. P. 116.25	4 "	98 "	" "	" "

Right of Way Cleaned

Between M. P. and M. P.	Total Miles.	Remarks.
6 15.5	3.5	Four-foot strip outside of fence cleaned of all second growth brush, loose stumps and other rubbish. Previously cleaned.
21 35	3.5	All brush, stumps and other rubbish cleaned up. Previously cleaned.
0.5 35	34.5	All second growth brush and weeds mown.
35 101	12.25	All second growth brush, loose stumps and other rubbish. Not previously cleaned.
104 105	1	Four-foot strip outside fence cleaned of brush, loose stumps and other rubbish. Previously cleaned.
105 132	5	Four-foot strip outside fence cleaned, etc.
101 142	41	All second growth brush and weeds mown.
139.5 248	19.5	All brush, stumps and other rubbish removed. Not previously cleaned.
226 253	27	All second growth brush and weeds mown.
<i>Kerr Lake Branch.</i>		
0 1	1	All second growth brush, loose stumps and other rubbish removed. Not previously cleaned.
<i>Charlton Branch.</i>		
5.5 7	1.5	All second growth brush, loose stumps and other rubbish cleaned up. Not previously cleaned.
<i>Porcupine Branch.</i>		
0 30	2.5	All second growth brush, loose stumps, etc., removed. Previously cleaned by construction forces.
24 25	* 0.5	On one side of track only. All stumps taken out and all wooden rubbish piled and burned.
25 27	* 2.0	Both sides of track thoroughly cleaned of all stumps and rubbish.
32.5 34	* 1.5	Both sides of track, also Schumacher and Timmins yards and station grounds cleaned of all stumps and wooden rubbish, which was piled and burned.
Total Miles..	156.25	

Summary

9.5	Miles of four-foot strip outside of boundary fence cleaned of all second growth brush, loose stumps and other loose rubbish.
40.25	" of right of way cleaned of all second growth brush, loose stumps and other rubbish, most of which had not been previously cleaned.
102.5	" of right of way on which was mown all second growth brush and weeds.
* 4	" of right of way at west end of Porcupine Branch thoroughly cleaned, all stumps having been taken out and piled up and burned along with all other rubbish.

156.25 Total Miles.

NOTE.—All of the foregoing work performed by regular section gangs excepting that marked *, which was done by extra gang. During the summer months section gangs generally devoted their time on Saturday afternoons to this work.

Roadways.

Location.	Purpose.	Remarks.
North Bay ...	Freight shed roadways.	Freight shed and town siding driveways coated with 14 cars cinders, also Regina Street improved in like manner from freight shed to Main Street.
" " ...	Town streets	Golf Street raised with sandfilling material hauled from Feronia Pit, from C. P. R. tracks to Main Street. William Street also raised to correspond with new level of Golf Street.
" " ...	General stores	New roadway graded and drained, thus providing access to T. & N. O. stores building from McIntyre Street.
Haileybury ..	Town streets	Sixteen cars gravel delivered near Vendome Hotel for the Municipality. (B-C.)
New Liskeard.	" "	Sixteen cars gravel delivered from Cassidy Pit for the Municipality.
Heaslip	Station roadway	Coated with 1 car cinders.
Englehart	Freight delivery	Town siding roadways coated with 11 cars cinders.
Swastika	Station driveway	Four cars sand from Dane Pit and 4 cars cinders from Englehart used to improve roadways here.
Cochrane	Station Roadways	Thirty-six cars gravel from Nellie Lake and 15 cars cinders used for this purpose.
S. Porcupine..	Town streets	Fifteen cars gravel delivered from Timmins Pit for the Municipality for this purpose.
" " ..	Township roads	Thirteen cars gravel delivered from Drinkwater Pit for roads in Township of Whitney.
" " ..	" "	Twenty-six cars gravel delivered from Barber's Bay Pit to be used for roads in Township of Tisdale. (B-C.)
Lakeview	" "	Thirty cars gravel delivered here from Barber's Bay Pit for Mr. G. W. Bennett, Superintendent of Colonization Roads, to be used for roads in the Porcupine District. (B-C.)

Public Road Crossings.

Location.	Description.	Remarks.
Nipissing Jct. Spur....	At grade	Old crossing over C. P. R. and Smith's Spur at a point about one-half mile west of Nipissing Junction installed across Nip. Jct. Spur.
M. P. 4 $\frac{1}{2}$	" "	Old private crossing converted to public one, over main line.
M. P. 110 $\frac{1}{2}$	" "	Over new second track, Haileybury-Liskeard.
M. P. 111	" "	Over new second track, Haileybury-Liskeard.
Liskeard	" "	New crossing at Broadwood Avenue over main line and spur. Considerable filling necessary here, 30 cars being hauled from Cassidy for this purpose.
M. P. 127 $\frac{1}{2}$	" "	Over main line, moved to proper line.
M. P. 132	" "	Over main line. Township line crossing. New.
M. P. 137 $\frac{1}{2}$	" "	Over main line. New.
M. P. 213	" "	Over main line. New.
Kelso	" "	Over main line. New. Ten cars filling used.
M. P. 225 $\frac{1}{2}$	" "	Over main line and one siding. New.

Private Road Crossings.

Location.	Description.	Remarks.
Nipissing Jet, Spur	At grade	Two farm crossings installed over this spur.
M. P. 110 $\frac{1}{2}$	" "	Private crossing moved on to new line and installed over new second track.
M. P. 123 $\frac{1}{2}$	" "	New private crossing installed over main line.
M. P. 127 $\frac{1}{2}$	" "	Private crossing, approaches graded only.
M. P. 210 $\frac{1}{2}$	" "	New farm crossing, over main line.
M. P. 211	" "	New farm crossing, over main line.

Cattle Guards Installed.

Location	Crossing Sets	Kind	Remarks
Nipissing Jet, Spur	1	Wooden slat	For single track, public crossing
M. P. 4 $\frac{1}{2}$	1	"	" " " " " "
M. P. 110 $\frac{1}{2}$	1	"	" double " " " "
M. P. 111	1	"	" " " " " "
Liskeard	1	"	" two tracks " "
M. P. 127 $\frac{1}{2}$	1	"	" single track " "
M. P. 132	1	"	" " " " " "
M. P. 137 $\frac{3}{4}$	1	"	" " " " " "
M. P. 213	1	"	" " " " " "
Kelso	1	"	" " " " " "
M. P. 225 $\frac{1}{2}$	1	"	" double " " " "

Ditching—Hand Work.

Location.	Length.	Remarks.
North Bay	400 feet	Drainage of property surrounding Stores Bldg.
M. P. 105-106	230 feet	Drainage in connection with Nipissing Central transfer siding at North Cobalt.
Liskeard	670 feet	Side ditches cleaned only.
"	145 feet	Drainage in connection with installation new public crossing at Broadwood Avenue.
Uno Park	615 feet	New ditch, drainage station grounds.
M. P. 119-123	17,131 feet . . .	Side ditches, cleaned only.

Machine Work.

M. P. 111 $\frac{1}{2}$	70 feet	Fifty-four cars loaded, approximately 425 cubic yards material.
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Clay Cuts Cleaned.

Location.	Length.	Remarks.
M. P. 111 $\frac{1}{2}$	410 feet	Five hundred cars material loaded, approx. 4,000 cubic yards. Heavy land slides occurred at this point. Machine work.
M.P. 112	20 feet	Eight cars, approx. 60 yards material lifted here. Machine work.
Between M. P. 131 and 133 $\frac{1}{2}$	2 miles	Twelve hundred and thirty-four cars, approx. 9,800 cubic yards material lifted from cuts at this point. Machine work.
M. P. 135 $\frac{1}{2}$	600 feet	Fifty-four cars, approx. 430 yards material loaded. Machine work.
Between M. P. 147 and 148	400 feet	One hundred and twelve cars, approx. 900 yards material lifted. Machine work.

NOTE.—All the "machine work" above referred to was performed by the "American" Railroad Ditching Machine.

Land Slides and Wash-Outs.

Location.	Remarks.
Trout Mills	Heavy wash-out in roadbed in three places from two to four feet in depth and aggregating 150 feet in length at a point near Trout Mills station. These were caused by extremely heavy rains during the night of June 16th.
M. P. 6 $\frac{1}{2}$	Culvert partly washed out, caused by heavy rain of June 16th.
M. P. 7 $\frac{1}{2}$	Culvert partly washed out, caused by heavy rain of June 16th.
M. P. 11 $\frac{1}{2}$	Wash-out in roadbed, June 16th.
M. P. 11 $\frac{3}{4}$	Wash-out in roadbed, June 16th.
M. P. 16 $\frac{1}{4}$	Culvert in high fill washed out, June 16th, causing derailment of south-bound extra No. 123 on the 17th.
	All of the above-mentioned wash-outs were caused by the cloud-burst that occurred on that date, which was local only, and the worst in the history of that section of the road.
M. P. 111	Heavy slide occurred in clay cutting at this point on November 12th, caused by severe rains. Removed by Ditching Machine.
M. P. 111 $\frac{1}{2}$	Heavy slides occurred in clay cutting at this point on November 12th and May 22nd, the former caused by rain, and the latter due to frost and rain. Both slides lifted by Ditcher.
M. P. 112	Two slides took place here, one on May 15th, about 60 feet in length and 4 feet in depth over west rail of main line, caused by frost leaving the ground; and the other on May 22nd, 100 feet long by 3 to 4 feet in depth over rail—cause, rain and frost. The former was cleared by hand and the latter by the Ditcher.
M. P. 148	Slight slide in clay cut due to heavy rain on November 12th. Removed by Ditcher.
M. P. 162 $\frac{3}{4}$	Wash-out in roadbed, April 27th. Filled with 10 cars cinders from Englehart.
M. P. 220	Small slide in cutting, November 13th. Removed by hand.

Fence Repaired and Renewed.

Description.	Location.	Side.	Total miles.
Right of way.....	Between M. P. 110 and 112.....	Both	0 6
" " and boundary.....	Between M. P. 131 and 141.....	"	16.4
Total miles of fence			17.0

New Fence Constructed.

Description.	Location.	Side.	Gates.	Total rods.
Boundary, page wire, with cedar posts	M.P. 133, extra lands	West.	1	37
Ditto	M.P. 137 $\frac{3}{4}$, moved .....	"	.....	40
"	" new .....	"	.....	40
"	Englehart, around park lot	Tri-angle.	1	76
"	Between M.P. 158 $\frac{3}{4}$ and 162 $\frac{1}{4}$	West..	8	{ 1,160 240
"	Between M.P. 220 and 225	Both	12	
"	Monterith town site, moved	East..	1	31
Total rods				4,976

4,976 rods..... 15.5 miles.

Timber Bridges Filled.

Location.	Material.	Quantities.	Remarks.
M.P. 55.36	Filling from pit at M.P. 58 $\frac{1}{2}$. Stone from pit at 58 $\frac{1}{2}$.	300 cars, approx. 3,000 cubic yards. 85 cars, approx. 750 yards.	Partially filled, to be completed in November.
M.P. 70...	Filling from 58 $\frac{1}{2}$	15 cars, approx. 150 yds.	Work only commenced.
M.P. 3.3...	Filling from Nellie Lake	986 cars, approx. 9,860 yards.	Completely filled.
Porcupine Branch.			

Cross Laying.

Location.	Description and Remarks.
M.P. 23 $\frac{1}{2}$ Porcupine Branch	Sink hole at this point cross-layed with 19 cars of 16-foot poles.

Main Line, Re-ballasted.

From M.P.	To M.P.	Quantities and Description.	Cars.	From pit.	Total miles.
42	56	One flat car deep	1,848	M.P. 58 $\frac{1}{2}$..	14
60	61	Patching	34	" ..	1
110	111	"	32	Cassidy ...	1
112	116	"	27	" ..	4
116	124	One flat car deep	1,128	" ..	8
218	219	Patching	27	Nellie Lake.	1
221	223	"	73	" ..	2
225	250	Depth, 1 $\frac{1}{2}$ flat cars	5,071	" ..	25
251	252	Patching	34	" ..	1
Porcupine Branch.					
.....	28	Patching	207	" ..	28
29	33.5	Depth, 2 flat cars	1,259 1,425	Barber's Bay Timmins Cut	5.5
Total miles					90.5
Total miles full ballasted					
" patched "				52.5 38.0	
Total miles ballasted					
90.5					

NOTE.—The work on Porcupine Branch as above was done on Construction Account.

Main Line Embankments Restored to Width.

Between—		Cars of ballast.	From ballast pit.	Total miles.
M. P.	and M. P.			
42	56	1,787	M.P. 58½.....	14
84	88	272	Cassidy.....	4
98	99	32	".....	1
102	104	48	".....	2
105	108	100	".....	3
109	110	16	".....	1
112	113	16	".....	1
		Porcupine Branch (widened)		
.....	6	639	Nellie Lake.....	} 33.5
4	33.5	1,804	Drinkwater pit.....	
		Total miles.....		59.5

NOTE.—Embankments were repaired where necessary between mile posts as given above, with exception of work on Porcupine Branch, which consisted of widening embankments and raising sags. Construction.

Track—Re-Surfaced.

Between—		Main Line.		Sidings.		Location.
M.P.	and M.P.	Average Lift.	Total Miles.	Average Lift.	Total Miles.	
At North Bay Jct.		inches.		inches.		
42	56	3	2		1	Bushnell and Redwater sidings. Sidings—Uno Park. Sidings—Iroq. Falls, Nellie Lake, Holland and Wicklow.
		9	14	9		
115.75	123	9	7.25	12	0.50	
224	250	11	26	10	1.75	
		Porcupine Branch.				
.....	2	10	2	12	2	Iroq. Falls yard and Wye.
3	4	6	1	6	0.25	
5	6	12	1			Connaught. South Porcupine. Schumacher.
7	9	6	2	.....		
10	14	5	4	6	0.50	
25	28	6	3	4	1	
28	34	12	6	10	0.75	
		8	68.25	8.6	7.75	

The work on Porcupine Branch, as above, was done on Construction Account.

Main Track Re-Aligned and Curves Spiralled.

From M.P.	To M.P.	Average distance moved.	Total Miles.
48.25	56	8.5 in.	7.75
115.75	123	3 in.	7.25
224.	250	2 in.	26.
		4.5 in.	41.

Rock Cuts Cleaned and Widened.

Between M. P. and M. P.	Total Miles.	Remarks.
18	42	24 All loose rock removed from cuts, approx. 250 cubic yards material handled.
43	50	7 Rock cuts widened to permit the free operation of snow plow wings, this work being occasioned by the re-alignment of main line track. Approx. 425 cub. yards material handled.
53	73	20 All loose rock removed, approx. 425 yards material.
81	89	8 Rock cuts widened to clear snow plow wings, necessitated through re-alignment of track. Approx. 200 yards material handled.
	59	Total miles.

Retaining Walls.

Cobalt.....	A dry stone wall was built near Davis' coal chute for the purpose of protecting side of cutting.
	Dimensions: Length.....274 ft.
	Average height 5 ft. 6 in.
	" thickness..... 4 ft. 6 in.

Material Loaded at Ballast Pits.

Ballast, Loaded by Steam Shovel, Feronia Pit.

Purpose—	Cars.
Construction ballasting, Nipissing Junction spur	18
Filling for joint terminal tracks, North Bay Junction	1,226
Ballasting for joint terminal tracks, North Bay Junction.....	528
Total	1,772

Ballast, Loaded by Steam Shovel, M.P. 17.

Purpose—	Cars.
Filling bridge, M.P. 53.84	8
Ballasting joint terminal tracks, North Bay Junction.....	162
Ballasting Nipissing Junction spur	249
Total	419

Ballast, Loaded by Hand, M.P. 17.

Purpose—	Cars.
Filling wash-outs of June 16th between M.P. 6 and 16½.....	70

Ballast, Loaded by Steam Shovel, M.P. 58½.

Purpose—	Cars.
Ballasting main line and sidings, First Division, Maintenance.....	2,890
Restoring main line embankments to width, First Division, Maintenance....	860
Ballasting new siding for Spanish River Pulp Co. at Kenny, M.P. 48½.....	35
Ballasting new T. & N. O. Ry. material yard siding, North Bay Junction....	17
Ballasting joint terminals, North Bay Junction (sorting lead east), Main- tenance	17
Supplied Bridge and Building Department for manufacture of concrete tile at North Bay	3
Filling trestle, M.P. 70	15
Filling trestle, M.P. 55½	300
Filling trestle, M.P. 55½ (rough ballast or stone)	85
Supplied Dome Mines Co., South Porcupine. (B/C.).....	9
"Hart" cars supplied Dome Mines Co., South Porcupine.....	3
"Hart" cars supplied Contractor G. T. Turney, Haileybury. (B/C.).....	5
Total	4,239

Ballast, Loaded by Hand, Cassidy Pit.

Purpose—	Cars.
Supplied Nipissing Central Railway Co. at North Cobalt for ballasting their electric lines	12

Ballast, Loaded by Steam Shovel, Cassidy.

Purpose—	Cars.
Filling for double track, Haileybury to New Liskeard	1,458
Ballasting for double track, Haileybury to New Liskeard.....	633
Filling and ballasting extensions to Nipissing Central Street Railway Lines, Haileybury and New Liskeard	1,817
Filling for transfer siding to Nipissing Central Ry. at M.P. 109½.....	16
Widening Nipissing Central connection at North Cobalt.....	32
Filling and ballasting Northern Lumber Company's siding, North Cobalt....	32
Fill and ballast for terminal sidings, Elk Lake Branch, Earlton	194
Ballasting Spanish River Pulp Co.'s siding, Kenny, M.P. 48½.....	15
Ballasting new spur siding, Charlton	30
Ballasting McChesney's siding, M.P. 114. (B/C.).....	5
Filling and ballast for Wabi Iron Works siding, Liskeard.....	82
Filling and ballast for Messrs. Hogg & Lytle's siding, Liskeard	44
Filling Broadwood Avenue crossing, New Liskeard	30
Widening embankments, main line, First Division	484
Ballasting main line, First Division, Maintenance.....	1,193
Ballasting main line and sidings, Uno Park, Maintenance.....	112
Ballasting sidings, Haileybury and Liskeard, Maintenance.....	32
Supplied Contractor H. T. Routley, North Cobalt. (B/C).....	18
Supplied Engineer G. L. Bouchier for Latchford Dam. (B/C)	6
Supplied Municipality of Haileybury for town streets. (B/C)	16
Supplied Municipality of Liskeard for town streets. (B/C).....	16
Total	6,265

Clay, Steam Shovel Loaded, Cuts 110½ to 112 M. Ps.

Purpose—	Cars.
Excavating and filling for double track from Haileybury to New Liskeard for use of Nipissing Central Railway.....	3,405

Sand, Loaded by Hand, Dane Pit.

Purpose—	Cars.
Station roadways and grounds, Swastika	4

Ballast, Loaded by Steam Shovel, Nellie Lake Pit.

Purpose—	Cars.
Raising ballast pit sidings, Nellie Lake.....	284
Filling in station grounds north of Matheson Station	40
Public road crossing, Kelso.....	10
Station roadways, Cochrane	36
Ballasting freight shed siding and extension to same for Knight Bros., Cochrane	65
Ballasting main line between M.P. 218 and Cochrane. (Some widening, etc., included)	5,275
Ballasting siding, Wicklow	58
Ballasting sidings, Cochrane	22
Filling station grounds, Iroquois Falls.....	32
Ballast and fill for terminal sidings, Porcupine Branch, Iroquois Falls, Construction	656
Filling and widening main line embankments, Porcupine Branch, Construction	529
Ballasting main line, Porcupine Branch, Construction	317
Ballasting Kilburn siding, Porcupine Branch, Construction.....	32
Filling trestle, M.P. 31½, Porcupine Branch, Construction	986
Total	8,342

Ballast, Loaded by Steam Shovel, Barber's Bay.

Purpose—	Cars.
Ballasting main line, Porcupine Branch, also some filling and widening included, Construction	1,235
Ballasting sidings, Porcupine, South Porcupine and Schumacher, Construction	227
Filling and widening embankments, Porcupine Branch, Construction.....	39
Filling sink hole, M.P. 23½, Porcupine Branch, Construction.....	239
Filling approaches to bridge, M.P. 10, Porcupine Branch, Construction.....	140
Gravel supplied B. & B. Department for concrete work, Porcupine River Bridge, Porcupine Branch, Construction.....	33
Gravel supplied B. & B. Department for concrete work, new section dwelling houses at Connaught, Keys and Porcupine, Construction	22
Gravel delivered at South Porcupine for Township of Tisdale for road purposes. (B/C)	26
Gravel supplied Mr. G. W. Bennett, Superintendent of Colonization Roads, and delivered at Lakeview, Porcupine District, for road purposes in that vicinity. (B/C)	30
Gravel supplied The Dome Mines Co. at South Porcupine. (B/C)	15
"Hart" cars, gravel supplied The Imperial Oil Co. for roadway at Queen City Oil Company's warehouse, South Porcupine. (B/C).....	2
Total	2,008

Gravel, Loaded by Hand, Barber's Bay Pit.

Purpose—	Cars.
Supplied B. & B. Department for concrete work, Porcupine River Bridge, Porcupine Branch, Construction	21

Ballast, Loaded by Steam Shovel, Drinkwater Pit.

Purpose—	Cars.
Filling and widening, Porcupine Branch, Construction.....	1,850
Filling approaches to bridge, Porcupine River, Construction.....	15
Filling approaches to Frederickhouse River Bridge, Construction.....	359
Filling sink hole, M.P. 23½, Porcupine Branch, Construction.....	1,190
Gravel delivered at South Porcupine for Township of Whitney for road purposes	13
Total	3,427

Ballast, Loaded by Steam Shovel, Timmins.

Purpose.	Cars.
Ballasting Porcupine Branch west from M.P. 28 to end of steel, Construction.	1,425
Ballasting sidings, South Porcupine, Schumacher and Timmins, Construction.	85
Gravel supplied B. & B. Department for concrete work, Porcupine River Bridge, Construction	45
Gravel supplied Municipality of South Porcupine for town streets.....	15
Total	1,570

Cinder Ballast.*North Bay*

Purpose.	Where unloaded.	Cars.
Construction Ballasting Joint Terminal tracks	North Bay	10
Construction Ballasting Stock yard siding.		
Joint Terminals	" "	7
Floor in new ice house, Joint Terminals ..	" "	10
Floor in new stock pens, Joint Terminals ..	" "	13
Path along lead for use of switchmen, Joint Terminals	" "	1
Ballasting main line through Joint Terminals ..	" "	3
Ballasting Joint Terminal sidings	" "	91
Shed sidings and roadways, also improvement of Regina Street from freight shed to Main Street	" "	14
Filling hole around new steel water tank ..	" "	6
Tile drainage in cuts	M.P. 73½	6
Filling wash-out of June 16th	M.P. 3½	4
Ballasting Spanish River Pulp Co.'s siding.	M.P. 48½	2
Filling sink hole	M.P. 52	18
Ballasting ..	Main Line	11
Filling wash-out	M.P. 162¾	2
	Total	198

Kerr Lake Junction.

Ballasting	Kerr Lake Branch	5
Ballasting yard	Kerr Lake	2
Landing platform for accommodation of traffic	Lawson's siding	1
Total		8

Englehart.

Culvert repairs	Englehart	1
Water service drain	"	3
Roadway at town siding	"	11
Ballasting yard sidings	"	20
Grounds at bunk room	"	5
Filling station grounds	"	4
Filling station grounds at freight shed	"	4
Turn-table pit	"	3
Garden at station	"	1
Greenhouse purposes	"	1
Ballasting Main Line and sidings	Charlton Branch	22
Filling station grounds	Charlton	1
Station grounds improvements	Ewastika	4
Repairs to culvert	M.P. 150	2
New culvert	M.P. 184	2
Filling washout	M.P. 162½	8
Ballasting new pulp spur	Wabewawa	9
Ballasting yard sidings	Iroquois Falls	6
Repairs to road crossings	M.P. 140-141	2
Filling bridge approaches M.P. 146 to 143	Main Line	4
Filling bridge approaches	M.P. 138	2
Second Division, Ballast	Main Line	17
Ballasting Main Line	South from M.P. 138	36
Ballasting McKnight and Jones siding	M.P. 120	2
Ballasting McChesney's siding	M.P. 114	6
Stop block and ballast, McCamus and McKelvie's siding	North Cobalt	1
Underdrainage in cuts	M.P. 115½	2
Station grounds improvements	Heaslip	1
Total		180

Cochrane.

Filling around shors and tank	Cochrane	22
Roadway at old station	"	15
Total		37

South Porcupine.

Main Line	Porcupine Branch, Ballast purposes	21
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Other Materials Handled by Work Trains.

Material.	Purpose.	Cars.	
		Loaded.	Unloaded.
Coal	Locomotive fuel. Loaded by our Steam Shovel, No. 1, at North Bay	100	33
Rails	Maintenance, Porcupine Branch		1
"	Rail renewals		2
" and fastgs. ..	Ballast pits, Porcupine Branch	3	1
"	Extension of " "	1	1
"	Ballast pit sidings, Nellie Lake	6	5
Switch matls.	Nickel Deposit Co.'s siding, Kilburn		1
Track "	Temporary diversion at sink hole, M.P. 23½, Porcupine Branch	2	1
" "	Ballast pit sidings, Barber's Bay	5	
Tools and matls. ..	Equipment of track sections, Porcupine Branch		1
" " ..	Extension of Porcupine Branch at Timmins	2	
Camp outfit	Barber's Bay Pit	7	7
" "	Timmins Pit	6	4
" "	Ballasting Elk Lake Branch, Contractors' work	3	
Shims	Maintenance, Porcupine Branch		2
Ties	Tie renewals		159
"	Extension, Porcupine Branch at Timmins	1	1
"	Ballast pit sidings, Nellie Lake	19	16
"	Ballast pit sidings, Drinkwater Pit	6	4
"	Double track, Haileybury to Liskeard ..		2
Cinders	Ballasting Joint Terminals sidings, North Bay	53	59
"	Filling wash-outs of June 16th, M.P. 0 to 16½	4	6
Muck	Station lawn, Iroquois Falls	17	17
Fence posts	Fencing right of way, Second Div.		1
Stone	Bridge, Porcupine River	12	12
"	Filling wash-outs of June 16th, M.P. 0 to 16½	26	26
"	Filling at M.P. 29 and 30, Porcupine Beh.	3	3
Stringers	Repairs to wash-outs of June 16th, M.P. 0 to 16½	1	1
Cement	Bridge, Porcupine River		2
Lumber	Bridge, Porcupine River		4
Timber	Filling sink hole 23½ Porcupine Branch.		2
Bridge piles	At Bridge M.P. 10, Porcupine Branch, for B. & B. Dept.	2	
Total		279	374

Other Materials Handled by Hand.

Material.	Loaded at.	Unloaded at.	Cars.	
Stone	Cobalt.....	M.P. 119	Protection of road bed	1
Blk. muck	Englehart..	Temagami ...	Flower beds and lawns	2
" ..	" ..	Cobalt	" " "	1
" ..	" ..	Sesekinika....	" " at section house	1
" ..	" ..	Matheson	" " and lawns	7
" ..	" ..	Iroquois Falls ..	" " "	1
				13

Material Handled by 'American' Railroad Ditching Machine with Work Train

Material.	Purpose.	Cars.	
		Loaded.	Unloaded.
Coal	Locomotive fuel supply. Handled at North Bay	29	21
Ties	Supplied Nipissing Central Ry., North Cobalt	1	.....
" (cedar)	Supplied Nipissing Central for Haileybury and Liskeard extensions	22	21
"	Construction Joint Terminal tracks, North Bay	2	11
"	McChesney's siding, M.P. 114.	1	.....
"	Tie renewals	239	45
"	Construction track at sink hole, M.P. 23½. Porcupine Branch .....	.....	1
"	Double track, Haileybury-Liskeard	6	5
"	McCamus & McKelvie's siding, North Cobalt .....	.....	1
"	New material yard siding, North Bay ..	3	.....
"	Spanish River Pulp Co.'s siding, M.P. 48½	2	.....
"	Construction Earleton Terminals, Elk Lake Branch	7	7
"	Construction Elk Lake Branch. Delivered	12	12
"	Construction Elk Lake Branch. Loaded	76	.....
"	Construction Timmins Terminals	8	8
"	Pit sidings, M.P. 58½	1	.....
"	Wabi Iron Works siding, Liskeard	1	.....
"	New T. & N. O. through siding, Mile 151	3	.....
" (switch)	Construction Joint Terminal tracks, North Bay .....	.....	2
" "	Double track, Haileybury-Liskeard .....	.....	1
" "	Renewals, Latchford Wye .....	.....	1
Rails	Construction Joint Terminal tracks, North Bay	10	14
"	Nipissing Central Ry. extensions, Haileybury and Liskeard	4	.....
"	Double track, Haileybury-Liskeard	9	9
"	Rail Renewals, Main Line	21	13
"	Construction Timmins Terminals	3	.....
"	New through siding, M.P. 151	2	2
"	Construction Earleton Terminals, Elk Lake Branch	8	11
"	Spanish River Pulp Co.'s siding, Mile 48½	.....	1
"	New Pulp siding, Charlton	2	1
" (old)	Re-inforcing Porcupine River Bridge (abutments)	1	1
" (scrap)	Handled for Stores Dept. ....	.....	12
" (20 lb.)	Handling Construction Plant, Porcupine Branch	3	.....
Sw. material	Construction Joint Terminal tracks, North Bay	6	7
" "	Double track, Haileybury-Liskeard .....	.....	1
" "	Spanish River Pulp Co.'s siding, Mile 48½	.....	1
Trk. "	McInnes & Walsh's siding, Mile 17½, Porcupine Branch	1	.....
" "	McChesney's siding, Mile 114	1	.....
" "	Princess Mine Co.'s siding, Cobalt	2	.....
" "	McCamus & McKelvie's siding, North Cobalt	1	.....
Drain pipe	Drainage of cuts, First Division .....	.....	1
" "	Extension culverts, double track, Haileybury to Liskeard .....	.....	2

Material Handled by 'American' Railroad Ditching Machine with Work Train Continued.

Material.	Purpose.	Cars.	
		Loaded.	Unloaded.
Wheels, scrap timber, etc.	Clearing for construction Joint Terminal Tracks, North Bay	29	27
Hand Cars	Repairs, Section Equipment		8
Sand	Locomotive sand supply, North Bay		1
Stone	Protection bridge abutments, Mile 138..	8	8
"	Widening rock cuts, Nipissing Jct. Spur	1	1
"	Retaining wall, Cobalt station grounds .	15	
"	Cribbing, new spur, Charlton	2	2
Fence material	Construction fence, Nipissing Jct. Spur..	1	1
" wire	" " Elk Lake Branch		3
" posts	" " First Division		1
Telegraph poles ...	Telegraph repairs and cleaning right of way	5	8
Logs, poles, etc. ...	Cleaning right of way, the material thus recovered being used for shop fuel and blocking of various kinds	19	
" " "	Fuel for shops, Englehart		6
" " "	Fuel for shops, North Bay, also blocking for various building purposes		13
Bridge timber	Loaded for B. & B. Dept. for Schumacher station and shed	2	
" "	For B. & B. Dept. for Bridge Repairs ..	1	2
Poles	Cross-laying sink hole, mile 23½, Porcupine Branch	19	19
Cinders	Construction ballasting Joint Terminal Tracks, North Bay	4	12
"	Underdrainage cuts, First Division	4	6
"	Ballasting Joint Terminals, North Bay, Maintenance	11	9
"	McChesney's siding, Mile 114, Ballast ..		4
"	Ballasting new material siding, North Bay		2
Tie-plates	Tie-plating curves, First Division		1
Muck	Station lawns and flower beds, Earleton ..	8	8
Clay	Cleaning clay cut, Mile 112½	8	
"	Cleaning clay cut, Mile 111½	16	
"	Cleaning land slide, Mile 111½	182	
"	Cleaning land slide, Mile 111	356	
"	Cleaning clay cuts, Mile 131 to 135½	1,288	
"	Cleaning clay cuts, Mile 147 to 148	112	
"	Widening embankments on Haileybury Spur, now used by Nipissing Central Rly.		86
"	Filling for double track, Haileybury to New Liskeard		356
"	Filling for Earleton Terminals, Elk Lake Branch		63
"	Widening embankments, First Division, Main Line, adjacent to points where loaded		1,345
"	Widening embankments, Main Line, Second Division, adjacent to points where loaded		112
Total		2,578	2,316

SUMMARY.

Fencing, First and Second Divisions—

Total cost	\$4,525 41	
Total number of rods fenced	4,976	
Average cost per rod		\$0 90.9

Fencing, Porcupine Branch—

Total cost	\$3,710 19	
Total number of rods fenced.....	4,480	
Average cost per rod.....		\$0 82.8

Ballasting, First Division—

Total cost	\$11,150 99	
Total number of cubic yards.....	30,690	
Average cost per cubic yard.....		\$0 36.3

Ballasting, Second Division—

Total cost	\$18,797 14	
Total number of cubic yards.....	52,050	
Average cost per cubic yard		\$0 36.1

Ballasting, Porcupine Branch—

Total cost	\$12,944 45	
Total number of cubic yards.....	28,910	
Average cost per cubic yard.....		\$0 44.4

Rails—

1.97 miles of 80 lb. rail at 33.60 per ton, cost	\$4,160 64
--	------------

Ties—

Nos. 1 and 2, 174,848 ties at 32c. each, cost	\$55,951 36
Culls, 3,989 ties at 12c. each, cost	478 68

Double Track, Haileybury to New Liskeard—

Total cost	\$42,068 65
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Improvements to Sectionmen's Houses—

Painting	\$1,137 40	
Foundations and cellars	936 40	
		\$2,073 80



1 and 3. Some of the grain in the "Northland."
2. At Jackson and Tindle's Camp.

BRIDGE AND BUILDING DEPARTMENT

Year Ended October 31st, 1912. W. J. Oldham, Bridge and Building Master.

The following is a statement of the work performed during the fiscal year ended October 31st, 1912, in maintaining the Bridges and Buildings, and constructing new ones, as was found necessary along the Railway of the Commission.

BUILDINGS.

Maintenance and General Repairs:

NORTH BAY.

General Offices.—Shelving, pigeon holes and cupboards were built in the Office of the Traffic Accountant; general repairs were made to the balance of the building.

Freight Shed.—A bond room 14 ft. x 16 ft. was built in one corner of this building, and a freight checker's room, 9 ft. x 7 ft., in the opposite end. The exterior of the building was painted, and a platform, 16 ft. x 350 ft., for transferring freight was built on the east end of the shed.

Section House No. 1.—A new woodshed was built to this building, and the exterior painted.

NORTH BAY JUNCTION.

Machine Shop and Roundhouse.—An addition of fourteen inches was put to the eave of the roof for the purpose of carrying the water clear of the wall, so as to prevent the formation of ice on the latter during the winter months. The three boilers in boiler room were renewed, and the space between the blacksmith shop and the boiler room was closed in, giving a tube room 15 ft. x 33 ft.

Coal Chutes.—The approach trestle was surfaced and lined, and general repairs made to the chutes.

Steel Water Tank.—A new automatic cut-off valve was installed for the purpose of better regulating the quantity of water in the tank.

Stores Building.—A complete new set of pigeon holes was built in the basement and in the stationery room upstairs.

All other buildings at this point were carefully looked after, and repairs made when found necessary.

The painting on all the buildings, as given below, was done in the Commission's Standard Colors.

Trout Mills.—General repairs were made to the station and platform and the exterior of the station painted.

Ferona.—Partitioned off a room, 8 ft. x 10 ft., in the freight shed to be used as a waiting room, and painted the outside of the building.

Widdifield.—Station and section house were both painted, and general repairs made to both buildings.

Mulock.—The section house was painted, and general repairs made to it.

Tomiko.—A kitchen, 14 ft. x 16 ft., was built to the station, and exterior of station and section house painted.

Diver.—The exterior of station was painted.

Otter.—The exterior of the section house was painted.

Bushnell.—The exterior of the section house was painted.

Redwater.—Cellars, with a good drainage system, were dug under both section houses, and foundations of concrete put under them, also both painted on the outside. The kitchen of the north section house was sheeted on the inside.

Doherty.—A new brick chimney was built on the section house, and the exterior painted.

Timagami.—The ice house, Agent's house, section house, freight shed and restaurant were painted on the outside.

Rib Lake.—The exterior of the section house was painted.

Johnson.—The exterior of the section house was painted.

Latchford.—The station platform was repaired and surfaced. A cellar was dug and concrete foundation put under section house. A water system was installed and new floor put in the kitchen of the Agent's house. The section house, Agent's house, freight shed and station were painted on the outside.

Gillies Depot.—The station was painted, and general repairs made to platform.

Cobalt.—New quarters were made in the station for a new Commercial Telegraph Office. General repairs were made to the Agent's house, section house and freight shed. A new floor was put in the barber's shop, situated in one of the buildings belonging to the Commission.

North Cobalt.—General repairs were made to the station and platform surfaced and lined.

Haileybury.—General repairs were made to the station and platform, Agent's house, section house and freight shed.

New Liskeard.—The stock yard was remodelled. General repairs were made to the station and freight shed.

Uno Park.—General repairs were made to the buildings at this place.

Thoruloe.—The coal shed was taken down and moved to Cochrane, and general repairs made to the station and freight shed.

Earlton.—General repairs were made to the station and freight shed.

Heaslip.—General repairs to station and freight shed were made, and a new brick chimney built on Agent's house.

Englehart.—The freight shed was moved back 16 ft., and an addition of 100 ft. put to the platform of same. An addition, 30 ft. x 50 ft., was put to the greenhouse, and a small storehouse, 15 ft. x 25 ft., built. A new ash pit was built and a new coach water line, 300 ft. long, was put in. The drainage system was completely overhauled, and general repairs were made to all buildings.

Dane.—General repairs made to the station, freight shed and section house.

Matheson.—General repairs were made to the station platform and freight shed.

Iroquois Falls.—Pigeon holes and cupboards were put in new station.

Cochrane.—A new drainage system and water connections were put into the Union Station. The coal chutes were surfaced and lined and general repairs made to all buildings.

GENERAL WORK.

In season, storm doors and windows, screens and screen doors were put in place on the different buildings, and the heating systems were carefully looked after and repairs made where necessary.

Drilling Wells.—Wells were put down at the following places:—

Uno Park,
Diver,
Dane,
Iroquois Falls,
Porcupine,
South Porcupine.

NEW BUILDINGS.

The following is a list and description of the new buildings erected during the past year:—

NORTH BAY JUNCTION.

A yard office, 20 ft. x 40 ft., divided off into four rooms:—One, 10 ft. x 11½ ft., for an operator's room; one, 7½ x 10 ft., for the yardmaster's office; one, 20 ft. x 30 ft., for freight clerk's office.

A building, 20 ft. x 25 ft., for quarters for the trainmen. This building was divided into three rooms. One, 13 ft. x 20 ft., for trainmen's kit; one, 11 ft. x 13 ft., for trainmen's waiting room, and one, 9 ft. x 12 ft., for trainmen's dressing room.

A platform connecting both the yard office and kit room. It extends out 8 ft. at each end, 12 ft. in the front and 19 ft. at the back.

A building, 14 ft. x 40 ft., was divided as follows:—A heater room, 12 ft. x 14 ft.; a store room, 8 ft. x 14 ft., and a coal room, 14 ft. x 20 ft.

An ice house, 32 ft. wide by 24 ft. high by 37½ ft. long, with two platforms, 8 ft. wide and extending the full length of the front of the building, was built in the most convenient location. This building has a capacity of 5,000 tons.

A blacksmith shop, 14 ft. x 16 ft.; a storeroom, 20 ft. x 20 ft.; six scrap bins, 10 ft. x 23 ft., and a rubber house, 9 ft. x 18 ft., were built in connection with the rip track.

The Car Foreman's office was moved and an addition, 20 ft. x 20 ft., added to it.

A building, 12 ft. x 18 ft., for storing tank material was built to the Bridge and Building Carpenter Shop.

A building, 12 ft. x 20 ft., was built for a storeroom for the Engineering Department.

A stock yard of six pens, 36 ft. x 80 ft., with a hay barn, 24 ft. x 30 ft., was built in the north end of the yard.

SWASTIKA.

An addition, 40 ft. x 30 ft., was put to the freight shed, and a waiting room and Agent's office fitted up. An extension of 400 ft. was put to the platform. A small building was put up for living quarters for the Agent.

COCHRANE.

A dwelling, 22 ft. x 28 ft., was built for Locomotive Foreman. A new cinder hoist and ash pit was installed. The coal shed at Thornloe was moved to this point and an addition of 10 ft. put to it, for living quarters for the section man.

PORTABLE STATIONS.

Portable stations, 10 ft. x 24 ft., were built at the following places:—

Chamberlain,
Wawbewawa,
Nushka,
Monteith,
Sesekinika,
Homer.

Platforms, 12 ft. x 50 ft., were built in connection with the same.

BOARDING CAMPS.

The following boarding camps were built at Nellie Lake and Dane Ballast Pits:—A cook camp, 14 ft. x 45 ft.; a sleeping camp, 14 ft. x 40 ft., and one, 14 ft. x 30 ft.

PORCUPINE BRANCH.

The following buildings were erected on the Porcupine Branch:—

Schumacher.—A station and freight shed combined. 125 ft. x 25 ft., divided off into a freight shed, a waiting room, a baggage room and office; also Agent's house, 22 ft. x 28 ft.

Timmins.—A combined station and freight shed. 125 ft. x 25 ft., divided off into a waiting room, office, battery room, baggage and express room, and a freight shed and platform, 16 ft. x 225 ft. A 40,000 gallon wooden tank with valve and meter chamber in connection therewith. A bunk-house, 20 ft. x 30 ft. Quarters for car repairers and small oil house under the same roof. The engine shed at South Porcupine was taken down and moved to this point and put up, and in addition a boiler room, 30 ft. x 40 ft., was added to the end; also a trestle nearby for the handling of the coal.

Section houses, 20 ft. x 27 ft.; woodsheds, 14 ft. x 20 ft., and tool houses, 14 ft. x 16 ft., were built at the following places:—

Iroquois Falls,
Keys,
Connaught,
Porcupine,
Timmins.

All new buildings along the Porcupine Branch and Main Line were equipped with the necessary fire protection.

During the year, 1,315,524 feet of different kinds of lumber were handled at North Bay Junction.

WATER TANKS.

MAIN LINE.

Widdifield.—General repairs.

Tomiko.—A cedar well 8 ft. square was put down, and an 8-inch pipe line run from the creek to the well.

Redwater.—A new pump-house 11 ft. by 18 ft. was built. The coal shed was moved and repaired, and a platform from coal shed to pump-house was put down. A pipe line from the lake to the pump-house of 8-inch tile was put in, and a well 8 ft. square was sunk. The tank was braced and sheeted on the inside.

Timagami.—The tank was braced and sheeted on the outside.

Latchford.—The tank was braced and sheeted on the outside.

Cassidy Pit.—A temporary tank was put up at this point.

Liskard.—General repairs were made to this tank.

Englehart.—General repairs were made to this tank.

Swastika.—Tank was sheeted on the inside, and general repairs made.

Burke's.—A well 8 ft. square by 8 ft. deep was sunk, and an 8-inch tile pipe 300 ft. long was put in between the well and the river. General repairs were made to the building.

Matheson.—General repairs were made to the building, and the old coal shed was removed.

Troquois Falls.—A temporary tank, and pump-house, 12 ft. x 14 ft., was put up at this point.

Nellie Lake.—Moved coal shed to better location, built new coal chute, and roofed pump-house with Canada plate.

Cochrane.—A new pump-house and pipe line was built.

PORCUPINE BRANCH.

Temporary tanks and pump-houses were built at M.P. 17 $\frac{1}{2}$, and South Porcupine.

BRIDGES AND TRESTLES.

Bridge Chippawa Creek. The top of the bridge was covered with 2 inch plank, and a railing put on.

Trestle M.P. 25.71 A number of posts were renewed, and the bridge surfaced and lined.

Trestle M.P. 42.18 This trestle was surfaced and lined.

Trestle M.P. 55.36 This trestle was put in shape for filling, by placing two 30 inch concrete pipe culverts with head walls through the dump at one end.

Trestle M.P. 55.94 The trestle was surfaced and lined.

Trestle M.P. 57.31 The trestle was surfaced and lined.

Trestle M.P. 58.70 The trestle was surfaced and lined.

Trestle M.P. 59.41 The trestle was surfaced and lined, and new stringers were put in.

Trestle M.P. 68.74 New posts were put in and trestle was surfaced and lined.

Trestle M.P. 69.91 The stringers were renewed.

Trestle M.P. 70.20 The trestle was surfaced and lined.

Trestle M.P. 71.37 New posts were put in and trestle was surfaced and lined.

Trestle M.P. 75.41 The trestle was surfaced and lined.

Bridge M.P. 115.47 New guard rails were put on.

Bridge M.P. 119.13 New guard rails were put on.

Trestle M.P. 138 Rock was used to fill in around the piers.

Trestle M.P. 153.50 On May 14th this trestle was burnt and our own forces rebuilt it.

Trestle.....M.P. 162.08.....Blocking was put in, and trestle surfaced and lined.

Trestle.....M.P. 163.13.....The trestle was surfaced and lined.

Trestle.....M.P. 175 The caps were renewed and trestle was surfaced and lined.

Trestle.....M.P. 178.90.....The stringers were renewed and trestle was surfaced and lined.

Trestle.....M.P. 181.75.....The stringers were renewed, and trestle was surfaced and lined.

Trestle.....M.P. 196.82.....New mud sills were put in, and trestle was surfaced and lined.

Bridge M.P. 217.75.....A number of new rivets were put in this steel bridge.

Trestle.....Kerr Lake Branch.The posts were renewed and new girths and braces put on.

Trestles.....Charlton Branch. All trestles were surfaced and lined.

PORCUPINE BRANCH.

M.P. 171½ Put in concrete abutments, and erected 100 ft. steel girder.

M.P. 10.25.....Repaired bents and built ballast walls.

Timmins Yard...A 2 inch plank covering and railing was put on the top of this trestle.

Culvert.....M.P. 161½ A new culvert was built at this point, owing to the old one having been washed out during the heavy rains in June.

Culvert.....M.P. 37.82.....General repairs were made.

Culvert.....M.P. 39.94.....General repairs were made.

Culvert.....M.P. 68.71.....A double 30 inch concrete pipe was put in.

Culvert.....M.P. 69.91.....A double 30 inch concrete pipe was put in.

Culvert.....M.P. 73.71.....General repairs were made.

Culvert.....M.P. 110. The double culvert at this point was extended 40 feet, with 30 inch cast-iron pipe, this being necessary on account of the double track built from the Haileybury Spur to the South Boundary of New Liskeard.

Culvert.....M.P. 172.50.....New corrugated iron pipe was put in.

Culvert.....M.P. 183.90.....New corrugated iron pipe was put in.

Culvert.....M.P. 224.25.....General repairs were made.

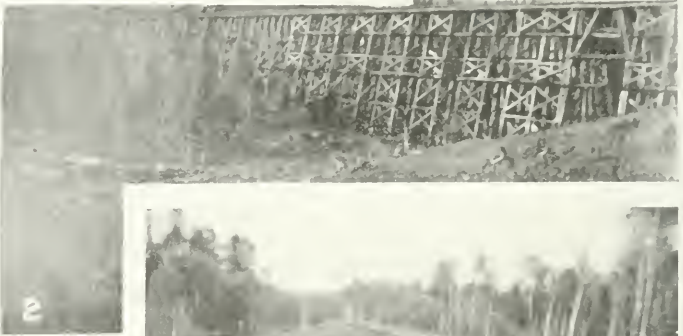
1

PORCUPINE BRANCH.

Culvert.....M.P. 3.3 New corrugated iron pipe was put in.

Culvert.....M.P. 23.50.....Culvert at this point was lowered.

Our bridge gang spent twenty-two days on the Elk Lake Branch helping the Contractors with the Jean Baptiste Trestle.



1. Grade to temporary trestle at Montreal River, Elk Lake Branch.
2. Jean Baptiste Trestle, Elk Lake Branch.
3. Temporary trestle, approach to Montreal River, Elk Lake Branch.
4. Grade to temporary trestle at Montreal River, Elk Lake Branch.

TELEGRAPH DEPARTMENT

Year Ending October 31st, 1912. W. J. Kelly, Telegraph Supervisor.

Main Line:

The reconstruction of telegraph and telephone pole lead on First Division was continued during the summer months, one extra gang being used to do this as well as all other new work. The weakest portion of line was given the preference in the year's appropriation, viz:—New Liskeard, M.P. 112.6, to Englehart, M.P. 138.5, and from M.P. 51 to Bushnell, M.P. 47.1.

This work consisted of an entirely new pole lead of 40 poles to the mile, with two six-pin cross-arms attached, and a third gain cut for future use. Ten wires were transferred from old poles to new lead. Old poles were taken down and piled conveniently for loading, the best of them will be used on branch lines and balance turned over to Road Department for fencing purposes. Two No. 9. B. & S. copper wires were strung from North Bay to New Liskeard and from Iroquois Falls to Cochrane, completing the telephone-train despatching circuit, the portion between New Liskeard and Iroquois Falls having been strung early in 1911 in order to extend Nos. 4 and 5 telegraph circuits, to handle the increased business from the Porcupine Mining Camp. In this way provision was made against any loss by having any unnecessary circuits left idle after business became normal. The long distance telephone wires, also strung in 1911 between Englehart and Cochrane, and converted into telegraph circuits to relieve the congestion, have been released, and long distance communication again established, North Bay to Cochrane, as in the train despatching circuit, loss was provided against when the brokers gave up their leased wires, by installing long distance telephones at all intermediate stations, giving them direct connections with the Bell Telephone Company at North Bay.

On completing the No. 9 copper circuit, North Bay to New Liskeard, one hundred and fifty-four miles of No. 12 copper circuit between these points was taken down and disposed of to good advantage. Telephones have been placed on train despatching circuit where this small copper wire was in use.

Branches:

On the Porcupine Branch a pole lead of 40 poles to the mile was built from South Porcupine, M.P. 26.7, to Timmins, M.P. 33.2. Three telegraph circuits were strung and railway and commercial offices opened at Schumacher and Timmins. 250 cells of battery were transferred from South Porcupine to Timmins. In order to extend commercial and train despatching telephone on the Porcupine Branch, a six-pin cross-arm was put on, two No. 9. B. & S., and two No. 10 N.B.S. copper wires strung, completing both circuits on the branch. Long distance telephones have been installed, giving the Porcupine Gold Camp direct connection with the Bell Telephone at North Bay, as well as all intermediate stations named in the schedule of telephone offices.

Telegraph Offices:

At Schumacher and Timmins offices were opened for railway and commercial business.

At Matheson, telegraph office was removed to new station.

At Cobalt, fire occurred destroying four 45 ft. poles, fourteen wires for 500 ft. and 150 ft. lead covered cable. This was renewed and the up-town Commercial Telegraph office removed to railway station, where new quarters were fitted up for the handling of commercial telegraph and telephone business; 300 ft. of 20 conductor lead cable was used in underground work to carry wires into new office.

Broker's Offices were closed at the following places:—

Cobalt,
Haileybury,
New Liskeard,
Porcupine,
South Porcupine.

Temporary Telegraph offices were opened for ballast pits and other purposes at the following points:—

M.P. 16,
M.P. 17,
M.P. 34,
Osborne,
M.P. 49,
Rabbit Creek,
Cassidy,
M.P. 110,
M.P. 111,
M.P. 153,
M.P. 184,
Nellie Lake,
Cochrane Junction,
Barber's Bay,
Drinkwater.

Telephone Offices:

Long distance telephone Offices were opened at the following points:—

Dane,
Swastika,
Matheson,
Troquois Falls,
Cochrane,
South Porcupine.

SUMMARY.

Summarizing the above reports the following construction work was performed during the year:—

Thirty-seven miles of new pole lead has been constructed, thirty miles on main line and seven on Porcupine Branch.

Four hundred and eighty-five miles of wire has been strung, made up as follows:—

Main Line.....	282 miles	No. 9 Copper.
Main Line.....	50 miles	No. 10 Copper.
Porcupine Branch....	66 miles	No. 9 Copper.
Porcupine Branch....	66 miles	No. 10 Copper.
Porcupine Branch....	21 miles	No. 8 Iron.

One hundred and fifty-four miles of wire taken down.

The total miles of wire in service is 2,630, an increase of 331 miles over previous year.

The following tables show the telegraph and telephone wires and equipment in use on the system:—

Table Showing Miles of Telegraph and Telephone Circuits.

Wire.	Gauge.	Weight per mile.	Service.	Miles.
Iron	No. 8 B. & S	378	Telegraph	1,194
Copper	No. 9 B. & S	210	Telephone Train De- spatching	578
Copper	No. 10 N. B. S	263	Long Distance Com. Telephone	588
Copper	No. 12 B. & S	105	Local Party Telephone. .	270

Total mileage—Wire, 2,630.

" " —Poles, 300.

Schedule of Telephones and Switches in Service, October 31st, 1912.

Mileage.	Place.	Building.	Office Telephones.	Cabinet Telephones.	Switch.
0	North Bay	Bell Telephone Central .....	.....	.....	.....
8.68	Ferona	Post Office	1	.....	1
13.52	Widdifield	Station	1	.....	1
26.	Tomiko Mills....	Ferguson & McFadden's Office	1	.....	.....
26.	" "	De Laplant's Lumber Co.'s Office	1	.....	1
26.	" "	Man'g Bucknam's Office.	2	.....	1
27.31	Tomiko	Station	1	.....	1
32.11	Jocko	Hawkesbury Lumber Co.'s Office	1	.....	.....
39.84	Diver	Station	1	.....	1
47.13	Bushnell	Section house	1	.....	.....
48.40	Kenney Siding ..	Span. River Pulp & Pa- per Co.'s Office	1	.....	.....
55.54	Redwater	Station	1	.....	.....
63.04	Doherty	Section house	1	.....	.....
71.8	Timagami	Station	1	1	1
79.5	Siding	Black and Wagar Office.	1	.....	.....
81.5	Siding	Hait & Dickson's Office.	1	.....	.....
82.96	Rib Lake	Section House	1	.....	.....
89.44	Johnson	" "	1	.....	.....
94.13	Latchford	Station	1	1	1
98.55	Gillies Depot ..	Station	1	.....	.....
102.8	Cobalt	Town Office	1	1	1
102.8	"	Yard	5	.....	.....
107.44	Haileybury	Town Office	1	1	1
107.44	"	Station	1	.....	.....
112.64	New Liskeard ..	Town Office	1	1	.....
112.64	"	Station	1	.....	1
118.13	Uno Park	Station	1	.....	1
128.59	Earlton	Station	1	.....	1
138.49	Englehart	Station	1	1	1
138.49	"	Yard	4	.....	.....
159.74	Dane	Station	1	.....	1
164.70	Swastika	Station	1	.....	1
205.27	Matheson	Station	1	.....	1
224.87	Iroquois Falls ..	Station	1	.....	1
253.10	Cochrane	Station	1	.....	1
253.10	"	Yard	3	.....	.....
PORCUPINE BRANCH—					
26.70	South Porcupine.	Station	1	.....	1
			46	6	18

Total:—52 Telephones.

Schedules of Switches and Instruments in Service, October 31st, 1912.

Mileage.	Place.	Building.	No. of sets Instruments.	Switches.	
				No.	Size.
0	North Bay.....	Dispatcher's Office ...	5	1	10 line
0	N. Bay Jet.....	Yard Office.....	2	1	4 "
8.00	Woodland.....	Pit.....	1	1	2 "
13.52	Widdifield	Station.....	2	1	2 "
18.05	Mulock	Pit.....	1	1	2 "
18.05	"	"	1	1	2 "
27.31	Tomiko.....	Station.....	2	1	6 "
39.84	Diver.....	"	2	1	4 "
55.54	Redwater.....	"	1	1	2 "
71.8	Timagami	"	2	1	10 "
94.13	Latchford	"	3	1	4 "
98.55	Gillies	"	2	1	2 "
102.8	Cobalt.....	"	2	1	4 "
102.8	"	Town Office.....	3	1	10 "
105.69	North Cobalt.....	Station.....	2	1	2 "
107.44	Haileybury.....	"	3	1	10 "
107.44	"	Town Office.....	4	1	4 "
112.64	New Liskeard.....	Station.....	3	1	10 "
112.64	"	Town Office.....	2	1	2 "
118.38	Uno Park.....	Station.....	2	1	2 "
124.78	Thornloe	"	2	1	2 "
128.59	Earlton	"	2	1	2 "
134.93	Heaslip	"	2	1	2 "
138.48	Englehart	"	3	1	6 "
7.06	Charlton	"	1	1	2 "
159.74	Dane	"	2	1	2 "
164.7	Swastika.....	"	2	1	2 "
182.48	Bourkes.....	"	1	1	2 "
205.27	Matheson.....	"	3	1	4 "
224.87	Iroquois Falls	"	3	1	10 "
253.1	Cochrane	"	2	1	4 "
	Drinkwater.....	"	1	1	2 "
24.10	Poreupine	"	4	1	10 "
26.7	So. Poreupine.....	"	4	1	10 "
31.7	Schumacher	"	2	1	2 "
33.2	Timmins	"	3	1	4 "
Total.....			82	35	

Summary.

Instruments.	Switches.	
	No.	Size.
82 Sets.	17	2 line.
	8	4 "
	2	6 "
	8	10 "
	35	

The telephone-train despatching equipment for main line and Porcupine branch, has been ordered from the Northern Electric Manufacturing Company, consisting of the following telephone sets:—

“A”— 1 complete Despatcher's set.

“B”—31 complete way station sets.

“C”— 8 complete passenger cars sets.

“D”— 2 complete auxiliary cars sets.

“E”— 2 complete private car sets.

The work of installing will be gone on with as soon as the equipment arrives, and will likely be in working order early in the new year.



1. Early days of construction, Elk Lake Branch.
2. An Engineers' party.
3. Track laying, Elk Lake Branch.

ANNUAL REPORT OF SUPERINTENDENT OF TRAFFIC

Year Ended October 31st, 1912.

W. A. GRIFFIN, S. OF T.

Following accidents occurred during the year:—

1911.

November 11th, Faquier Bros'. Engine No. 5, straddled switch points, opposite old station, Cochrane. Slight damage to track. Account rendered Messrs. Faquier, Contractors, covering.

November 16th, Extra 121, East. M. P. 6½, Poreupine Branch, struck hand car, damaging slightly.

November 18th, South Poreupine, Car M. D. No. 13747 damaged by fire, \$10.00, caused by heater exploding.

November 19th, Train No. 47, M. P. 102, killed two pigs. Owner, McKinley, Darragh, Savage Mines, Cobalt.

November 22nd, North Bay Junction yard, Car D. L. & W., No. 28111 derailed, account brake rigging dropping. Slight damage to track.

November 30th, Extra 112, South M. P. 5, North Bay sub-division, struck hand car, damage \$10.00.

December 2nd, at Englehart, Car P. & R. 19830 damage \$2.00 by fire, cause heater exploding.

December 17th, Extra 116, South M. P. 232, Car P. M. 900 became disabled, arch strap breaking, allowing bolster beams to drop to rails. Auxiliary from Englehart. Main track blocked four hours, fifteen minutes. No damage to track.

December 18th, Extra 118, South, while switching at New Liskeard, Brakeman F. St. Louis had third and fourth fingers of right hand crushed from first joint. Resumed duty February 15th, 1912.

December 25th, Extra 119, South M. P. 6½, North Bay sub-division, Car C. P. 17509 derailed. Cause, brake beam falling, main track blocked one hour, fifteen minutes. Car and track damaged, \$108.00.

1912.

January 3rd, Train No. 11, in charge of Conductor T. Hamilton and Engineer R. Jessup, ran into open switch opposite Union Station, Cochrane. Engine derailed, baggage car telescoped van, causing fire, destroying Van No. 50, baggage car No. 15, slightly damaging interior of 2nd class coach No. 10. C. P. 81980 and G. T. 5543 slightly scorched; B. & S. 10810, end smashed; B. & S. 10444, and 11370, draw-bars broken; C. P. 25727, sills broken; G. T. 75539, end sill and end of car broken and bent. Conductor T. Hamilton, Brakeman W. Russell and J. D. M. Sutherland severely injured. All recovered. Switch left open by Sectionmen, who were dismissed.

January 16th, Extra 131, South, while switching Mibe's Siding (Trout Mills), train parted behind tender, allowing cars to descend grade at excessive speed, colliding with cars at foot of grade, destroying cars T. & N. O. 60479, and 60633, and damaging T. & N. O. 60547 extent of \$128.00, and T. & N. O. 100001 extent of \$14.00. Track damaged, \$12.85.

January 17th, North Bay Junction. E. Hill, in charge of live stock, standing in car door while train switching, sustained slight injuries to side of face by door closing.

January 20th, while car repairer unloading jack from Baggage Car, Train No. 1, Trout Mills, struck William Hughes, age 14. Head cut slightly.

January 21st, South Porcupine. Brakeman, John Kennedy while splitting board to light fire in caboose, nail penetrated foot. Resumed duty January 25th.

January 22nd, Mrs. J. A. Gillies, Haileybury, while walking from ladies' waiting room to office to use telephone, slipped on ice, fractured leg above ankle.

January 26th, at Dane, engine of Extra 119, north from Dane to Swastika for water, on returning, light engine collided with train damaging cars T. & N. O. 60785, and C. P. 29663, loaded with steel rails extent \$195.00 and \$121.00 respectively, damaging tender, Engine 119 extent of \$90.00. Engineer and Conductor disciplined.

February 23rd, leading truck of Snow Plough No. 4 derailed opposite coal dock, account cinders and snow permitted to accumulate. Section Foreman resigned, pending investigation.

February 29th, at North Bay Junction Freight Shed, Arthur Demeza, trucker, while transshipping bar of steel slipped fell between platform and car, injuring knee-cap, left leg. Resumed duty, March 4th.

March 5th, while south way freight Extra 120, switching Iroquois Falls, 8.50 a.m., Brakeman Charles Lamourie fell from top of car, one truck passing over him. Rushed to hospital New Liskeard, by special, but succumbed to injuries 2.45 p.m. same date. Inquest held by Dr. Codd, Haileybury, verdict "accidental death."

March 5th, North Bay Junction freight shed, Michael Thibault, trucker, while performing regular routine work, slipped and fell, fracturing bone of big toe of right foot. Resumed work, April 1st.

March 5th, North Bay Junction yard, Switchman R. G. McKenzie, performing routine work, slipped and fell, spraining instep of right foot. Resumed duty, March 27th.

March 8th, Train No. 53, while passing Osborne, Cars G. T. No. 15462 and A. T. & St. F. No. 33609 derailed, damaging cars slightly. Cause, truck bolts breaking on trailing truck A. T. & St. F. No. 33609, allowing bottom truck strap to drop. Auxiliary ordered from North Bay. Main track blocked three hours, twenty minutes.

March 15th, Train No. 55, M.P. 1331½, truck on Car P. R. R. No. 793809 broke, derailing car and one pair of tender wheels, damaging track extent \$63.72. Auxiliary ordered from Englehart. Main track blocked four hours, thirty minutes.

March 21st, Kerr Lake, while unloading oil from Tank Car G. T. No. 81028, consignee's representative dropped match, accidentally setting fire to contents of car, damaging car G. T. No. 81028 to extent of \$218.93, also damaging car B. & O. No. 122264 extent of \$137.00.

March 22nd, at South Porcupine, Car G. T. Refrigerator No. 46273 damaged by fire extent of \$5.00. Cause, heater exploding.

March 25th, North Bay Freight Shed, George Gall, trucker, while performing regular routine work, had big toe left foot injured, caused by hydrant falling off truck. Resumed duty March 28th.

April 13th, while switching cars Town Siding, North Bay Junction, Car G. T. No. 10789 left track at heel of frog, also derailling truck C. P. No. 140046. Estimate damage cars, \$10.00, track, \$5.08.

April 14th, North Bay Junction yard, 3.20 a.m., switch engine No. 150 collided with T. & N. O. flat car No. 60267 destroying car and damaging engine. Engineer and brakeman responsible, disciplined.

April 18th, Train No. 1, M. P. 239, struck and instantly killed Russian, named John Saari, address unknown. Remains taken to Cochrane, Ontario, and buried at that point. Inquest held, verdict "accidental death."

April 19th, Switch Engine No. 151, derailed North Bay Junction yard, cinder pit switch. No damage to engine. Track damaged extent of \$10.61.

May 1st, while train No. 51 passing M. P. 49, cars G. T. No. 122414, G. T. No. 16079, P. R. R. No. 22597, G. T. P. No. 340274, A. R. L. No. 11675, and T. & N. O. No. 100185 derailed. Estimate damage to cars and contents, \$1,800.00. Damage to track \$53.10. Cause unknown. Auxiliaries ordered from North Bay Junction and Englehart. Main track blocked seven hours, ten minutes.

May 3rd, North Bay freight sheds, Charles Norton, trucker, had rib broken on right side, also shoulder bruised cause, case of glass falling on him. Resumed duty May 27th.

May 6th, Nellie Lake Pit, Brakeman Fred Williams, while running from van to cookery, stepped in hole, spraining knee badly. Resumed duty as freight clerk, North Bay Junction, July 29th.

May 9th, leading tender wheels of Engine No. 103 derailed M. P. 81¼. Cause, low joint. No damage to engine. Track damaged slightly.

May 15th, Train No. 47, M. P. 121, struck and killed cow. Owner, Mr. J. Humphrey, Uno Park.

May 23rd, Eugene Cousineau, trucker, North Bay Junction freight shed, sprained back while lifting tie. Resumed duty May 31st.

May 25th, Train No. 53, while passing Joecko, 8.30 p.m. struck and killed three horses. Owner, Hawkesbury Lumber Company, Ottawa.

May 29th, Train No. 47, M. P. 103½, struck Mrs. Robert Carson, age fifty, of Cobalt, fracturing four ribs and collar bone. Removed to Cobalt Mines Hospital, Cobalt, and succumbed to injuries June 6th.

May 29th, Train No. 1, M. P. 71½ struck and killed cow. Owner, Mr. E. Perron, Timigami.

May 29th, Train No. 53, M. P. 103½, cars B. & S. Nos. 11790, 11265, 13221, 10994, Q. M. & S. No. 140 and N. Y. C. No. 385937 derailed, damaging cars and track extent of \$885.20. Cause, switch not properly secured. Conductor and Brakeman responsible, disciplined.

May 31st, Eugene Cousineau, trucker, North Bay Junction freight shed, while transferring large piece of iron smoke stack, had right hand jammed between side of car door and stack. Resumed duty June 10th.

June 16th, Extra 123, South, ran into washout, M. P. 16 $\frac{1}{4}$, derailling engine No. 123, and Cars C. P. 120712, Wabash No. 23349, C. C. C. & St. L. No. 4261, T. & N. O. No. 100193, G. T. No. 69901, C. P. No. 72821, P. M. No. 31690. Estimate of damage, equipment and track, \$2,674.00. Auxiliaries ordered from North Bay and Englehart. Main track blocked seven hours, twenty minutes. Engineer Newman, Fireman Siroir and Brakeman W. Hill injured. Fireman and Brakeman resumed duty June 23rd: Engineer Newman, September 11th.

June 21st, Train No. 47, while passing Seseikinika struck and killed heifer. Owner, Mrs. William Radkey, Seseikinika.

June 24th, Extra 118, South, M. P. 172, struck hand car, damaging slightly.

June 26th, North Bay Junction yard, Switchman G. R. Smith stepped in between cars to pull pin, stumbled on switch rod, injuring leg. Resumed duty July 31st.

July 9th, at Milne's Siding, M. P. 261 $\frac{1}{2}$, tender of Engine No. 116, derailed. Cause, spread track. Estimate of damage, tender and track, \$255.25.

July 15th, Train No. 2, M. P. 110 $\frac{3}{4}$, struck and killed cow. Owner, Mr. R. R. Hurd, Haileybury.

July 21st, Extra 129, North, M. P. 135, ran into herd of cattle, killing two cows and one heifer. Owner of cows, R. Bond, Heaslip. Owner of heifer, Mrs. J. W. Houghton, Heaslip.

July 30th, Train No. 51, M. P. 23, car G. T. No. 46596, derailed, damaging track slightly.

August 6th, Leading wheels of engine truck, Engine No. 136, Train No. 47, left rails M. P. 83 $\frac{1}{2}$, fifteen minutes detention. Cause unknown.

August 8th, Head on collision, Train No. 47 and D. S. 121, Riddle, 7:37 a.m. Fireman George Carmichael killed, several passengers shaken up, but none seriously injured. G. T. Express Car No. 725 badly damaged; Cars L. & N. No. 92517 and G. T. P. No. 301824 completely destroyed; C. V. No. 62881 and P. & R. No. 3459 partially destroyed; Engines 136 and 121 badly damaged. Estimate damage, rolling stock, \$7,000.00; track, \$560.00. Cause, Train No. 47 improperly flagged. Employee responsible dismissed. Auxiliaries ordered from Englehart and North Bay Junction. Main line blocked eleven hours.

August 12th, Extra No. 137, South, M. P. 86 struck velocipede on which two fire rangers were riding, instantly killing John White, resident of Aylmer, Quebec. John Richardson, other party, escaped without serious injury. Inquest held at North Bay, verdict "accidental death." No blame attached to train crew.

August 23rd, Train No. 82, M. P. 271 $\frac{1}{2}$, Porcupine sub-division, struck and killed cow. Owner Hendrix Bostram, South Porcupine.

August 27th, Train No. 1, M. P. 281 $\frac{1}{2}$ struck and killed cow. Owner George Cooper, Tomiko.

August 28th, at North Bay Junction yard, Car G. T. No. 46325 ran foul of two other cars, turning over on side, damaging slightly. Switchman responsible, dismissed.

August 30th, Train No. 47, M. P. 183 $\frac{3}{4}$, derailed. Trailing truck of tender, Engine No. 108 left rails, derailling baggage cars G. T. No. 581, and 679, and leading truck of 2nd class coach G. T. No. 1113. Estimate damage, equipment, \$488.50, track and labor expenses, rerailing, \$327.60. No person injured. Cause attributed to sun-kink.

September 6th, D. S. 140, M. P. 161½, G. T. Refrigerator, No. 46725 and C. P. Refrigerator No. 18147 derailed. Cause, tight friction on G. T. Refrigerator. Estimate damage, equipment, \$355.00. Auxiliary ordered from North Bay Junction. Main track blocked three hours, ten minutes.

September 7th, Extra 105, South M. P. 461½, struck and killed moose.

September 15th, Extra 137, South, M. P. 81, G. T. Refrigerator No. 46610 derailed. No damage to car. Estimate damage, track and labor rerailling, \$52.74.

September 25th, Extra 115, East, M. P. 32, Porcupine sub-division, G. T. Refrigerator No. 46524, derailed. Cause, tight friction. Main track blocked three hours.

September 27th, Train No. 35, M. P. 1, Kerr Lake sub-division struck and killed pig. Owner, Nipissing Mining Company, Limited.

September 28th, Train No. 85, M. P. 71½ struck and killed calf. Owner, C. Hindson, Timagami.

September 30th, Train No. 47, Swastika, struck and killed two pigs. Owner, T. Tough, Swastika.

October 5th, Extra 138, South, M. P. 127½, struck and killed cow. Owner, D. Mulvihill, Earleton.

October 5th, Train No. 44, M. P. 225, struck and killed pig. Owner Mrs. Alice Smith, Iroquois Falls.

October 7th, Train No. 7, at South side of Wye, Cochrane, ran into herd of cattle, killing one instantly. Owner Jamieson Meat Company.

October 7th, Work Extra 104, M. P. 106¼ struck and killed cow. Owner, Mr. J. Pockett, North Cobalt.

October 15th, North Bay Junction yard, Car J. B. No. 21349 and P. C. C. & St. L. 879153, damaged extent \$111.50 and \$4.50 respectively. Switchman responsible, dismissed.

October 16th, Pullman Car "Chemainus," Train No. 1 side steps, north end, west side, broken. Cause, striking ballast south of New Liskeard Station.

October 22nd, North Bay Junction yard, tender Engine 151, slightly damaged by collision with Engine 152. Switchman responsible, disciplined.

October 28th, 2nd, No. 87, M. P. 48½ 6.50 a.m., struck and killed two horses, value \$600.00. Owners, Spanish River Pulp and Paper Company, Limited.

December 3rd, 1911, the Grand Trunk Railway being without terminal facilities at North Bay, withdrew from the C. P. R. and commenced using the T. & N. O. Railway terminals, North Bay Junction, under agreement.

February 12th, 1912, Schumacher, M. P. 31.7 Porcupine sub-division, was opened for freight traffic, March 11th, 1912, opened for passenger traffic, and on July 8th, for railway and commercial telegraph.

Timmins, M. P. 33.2, Porcupine sub-division, opened for freight traffic, February 12th, 1912; passenger traffic March 11th, 1912, and on July 8th for railway and commercial telegraph.

Necessary time-table changes have been made to meet summer and winter requirements. Time-table No. 22, made effective December 3rd, 1911; time-table No. 23, effective March 10th, 1912; time-table No. 24, effective June 30th, 1912, and time-table No. 25, effective September 15th, 1912. Present time-table effective shows trains No. 1 and 2, daily between North Bay and Cochrane. These trains are equipped with standard C. P. R. sleepers, with interline service via C. P. R. to Montreal. Trains 46 and No. 47 daily, between North Bay and Timmins, with interline service, via G. T. R. to Toronto. These trains are equipped with Pullman cars, between North Bay and Timmins, and with Cafe-Parlor cars between North Bay and Englehart. Trains Nos. 10, 11, 12, 13, 44 and 45 run daily between Timmins, Iroquois Falls Junction and Cochrane, connecting with main track trains. Local passenger traffic between stations, Porcupine to Timmins, inclusive Porcupine sub-division, is taken care of, in addition to through trains Nos. 46, 47, 10 and 13, by trains Nos. 50, 51, 52 and 53. Trains Nos. 3 and 4 run daily, except Sunday, between Englehart and Cobalt, and passenger traffic between Cobalt and Kerr Lake is taken care of by trains Nos. 32, 33, 34, and 35, daily except Sunday, and trains No. 73 and No. 74, Wednesdays and Saturdays only. Charlton Branch passenger traffic is handled by trains Nos. 23, 24, 25 and 26, daily, except Sunday, making close connections at Englehart with all main track trains.

The civility and attention of the employees of the railway is well spoken of by travellers on the line.

Every attention is given to cleanliness of cars and stations.

Effective November 1st, 1911, the following changes were made in the organization and personnel of the staff:—

Mr. S. H. Ryan, heretofore Chief Train Dispatcher, appointed Trainmaster.

Mr. J. J. Campbell, heretofore Train Dispatcher appointed Chief Train Dispatcher, vice Mr. S. H. Ryan, promoted.

Herewith reports from Dr. McMurchy, North Bay; Dr. Fisher, New Liskeard; Dr. Lowery, Englehart; and Dr. Moore, Schumacher, covering medical attendance.

REPORT OF DR. A. MacMURCHY.

I am pleased to report very few accidents brought to my attention during the year ending October 31st, 1912, the greater number of them being minor accidents.

Shopman, elbow sprained.
 Shopman, laceration of right eyeball.
 Stockman, right ear partially torn from head.
 Freight trucker, big toe contused.
 Carpenter, foot severely contused.
 Brakeman, leg contused and knee sprained.
 Engineer, contusion of shoulder, scalp wound and injury to stomach.
 Brakeman, knee sprained.
 Fireman, killed.
 Pullman conductor, lacerated wound over eyebrow.
 Machinist, end of index finger lacerated.
 Apprentice, big toe lacerated.

REPORT OF DR. R. C. LOWREY.

I beg to submit you herewith statement of medical and surgical cases handled on my division, T. & N. O. Railway:—

Surgical:

Crushed limbs and bad injuries	1 (Fatality)
Fractured ribs	1
Crushed foot	1
Fractured arm	2
Fractured clavicle.....	1
Scalp abrasions and head injuries	2
Lacerated foot	1

There were also a number of minor injuries, including cuts, bruises and frost bites.

Medical:

Fever	2 cases.
Pneumonia	2 "
Neuritis	1 "
Hysteria	1 "

I also attended a number of employees suffering from minor ailments including tonsillitis, rheumatism and bronchitis.

REPORT OF DR. A. J. FISHER.

I herewith submit my medical report for the New Liskeard division, year ending October 31st, 1912:—

Month.	Consultation and medicine at office.	Dressings.	Visits.
November, 1911.....	3	2	42
December	21	4	14
January, 1912	1	1	20
February	18	3	4
March.....	23	4	9
April	4	.....	9
May.....	9	2	12
June	4	2	1
July.....	20	6	18
August	6	5	12
September.....	19	1	36
October	8	5	42
Total.....	136	35	219

Number of visits out of town, 47.

REPORT OF DR. H. H. MOORE.

I beg to report that since the Porcupine branch of the T. & N. O. Railway has been in operation, to date there have been very few cases of serious illness or accident to the employees of the railroad. One man was killed on December 3rd, 1911, in attempting to jump off a train at Camp 6. There was an outbreak of diphtheria in June, 1912, but it was limited to one case, who made a quick and uninterrupted recovery.

There have been very few cases of minor illnesses or accidents.

GENERAL FREIGHT AND PASSENGER DEPARTMENT

A. J. Parr, General Freight and Passenger Agent.

Year Ended October 31st, 1912.

Freight tonnage and gross freight receipts for the fiscal year ended October 31st, 1912, show the following comparison as against 1911:—

Tonnage, 1912.....	562,734	Freight revenue.....	\$929,464 66
Tonnage, 1911.....	564,120	Freight revenue.....	974,678 33
Decrease.....	1,386		45,213 67

It is seen, that while our tonnage for the year 1912 has fallen off 1,386 tons, our revenue has fallen off \$45,213.67 as compared with the year 1911.

This falling off in revenue is largely due to our extremely low basis of rates.

Up to the year 1907, the railways in eastern Canada based their rates on what is known as standard mileage basis.

On July 6th, 1907, the Board of Railway Commissioners for Canada issued their order No. 3258. This order called for the adoption, in territory east of North Bay, and south of the Ottawa River, of a basis known as Schedule A, from twenty to twenty-five per cent. below standard mileage. This order applied only to tariffs known as "Town tariffs" of the railways subject to the jurisdiction of the Board, and still allowed them to use standard mileage locally.

While this railway was in no way bound to observe this order, it was felt that, as a colonization railway, we should adopt the lowest possible rates, and accordingly, effective May 20th, 1912, through rates with our connections were published, based slightly below a combination of Schedule A rates on North Bay, and Schedule A rates were adopted locally as our standard mileage.

At the same time our commodity rates were revised, and a great many of them reduced so that at the present time, while none of our rates are higher than on other railways, many of them are much lower and generally speaking, the rates on this railway are lower than on any other railway in Canada.

The following are some examples of the application of rates on the T. & N. O. Railway, as compared with rates on other railways:

1. Silver Ore—

Cobalt to Copper Cliff.

60,000 lbs. T. & N. O. rate, 14c.....	\$84.00	T. & N. O. mileage.....	103
60,000 lbs. C. P. rate, 21c.....	126.00	C. P. mileage.....	80

Cobalt to Marmora.

60,000 lbs. T. & N. O. rate, 14c.....	\$84.00	T. & N. O. mileage.....	103
60,000 lbs. C. P. or G. T. rate, 34c.....	204.00	G. T. or C. P. mileage..	358

Cobalt to Orillia.

60,000 lbs. T. & N. O. rate, 14c.....	\$84.00	T. & N. O. mileage....	103
60,000 lbs. G. T. or C. P. rate, 21c.....	126.00	G. T. mileage	141

Cobalt to Thorold.

60,000 lbs. T. & N. O. rate, 14c.....	\$84.00	T. & N. O. mileage.....	103
60,000 lbs. G. T. or C. P. rate, 26c.....	156.00	G. T. mileage	289

Cobalt to Toronto.

60,000 lbs. T. & N. O. rate, 14c.....	\$84.00	T. & N. O. mileage.....	103
60,000 lbs. G. T. or C. P. rate, 24c.....	144.00	G. T. mileage.....	227

Cobalt to Kingston.

60,000 lbs. T. & N. O. rate, 14c.....	\$84.00	T. & N. O. mileage.....	103
60,000 lbs. G. T. or C. P. rate, 29c.....	174.00	C. P. mileage.....	277
The 14c. rate also applies from Charlton, mileage 146.			

2. Coal—

Buffalo to Cobalt to Heaslip, inclusive.

80,000 lbs. T. & N. O. rate, 80c. net ton....	\$32.00	T. & N. O. mileage	135
80,000 lbs. G. T. rate, \$1.75 net ton....	70.00	G. T. mileage.....	345

Buffalo to Matheson.

80,000 lbs. T. & N. O. rate, \$1.25 net ton....	\$50.00	T. & N. O. mileage	205
80,000 lbs. G. T. rate, \$1.75 net ton....	70.00	G. T. mileage.....	345

Buffalo to Cochrane or Timmins.

80,000 lbs. T. & N. O. rate, \$1.50 net ton....	\$60.00	T. & N. O. mileage	258
80,000 lbs. G. T. rate, \$1.75 net ton....	70.00	G. T. mileage.....	345

North Bay to Cartier.

80,000 lbs. C. P. rate, \$1.80 net ton....	\$72.00	C. P. mileage.....	115
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North Bay to Uno Park.

80,000 lbs. T. & N. O. rate, 80c. net ton....	\$32.00	T. & N. O. mileage	118
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North Bay to Chapleau.

80,000 lbs. C. P. rate, \$2.80 net ton....	\$112.00	C. P. mileage	252
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North Bay to Cochrane.

80,000 lbs. T. & N. O. rate, \$1.50 net ton....	\$60.00	T. & N. O. mileage	253
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North Bay to Pembroke.

80,000 lbs. C. P. rate, \$1.40 net ton....	\$56.00	C. P. mileage.....	140
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North Bay to Englehart.

80,000 lbs. T. & N. O. rate, 85c. net ton....	\$34.00	T. & N. O. mileage	138
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3. Lumber—

North Bay to Cartier.

40,000 lbs. C. P. rate, 8c.....	\$32.00	C. P. mileage	115
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North Bay to Uno Park.

40,000 lbs. T. & N. O. rate, 7½c.....	\$30.00	T. & N. O. mileage.....	118
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Pembroke to North Bay.

40,000 lbs. C. P. rate, 8½c.....	\$34.00	C. P. mileage.....	140
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Englehart to North Bay.

40,000 lbs. T. & N. O. rate, 8c.....	\$32.00	T. & N. O. mileage.....	138
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Cache Bay to North Bay.

40,000 lbs. C. P. rate, 4½c.....	\$18.00	C. P. mileage	26
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Tomiko to North Bay.

40,000 lbs. T. & N. O. rate, 3½c.....	\$14.00	T. & N. O. mileage.....	27
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4. Groceries—

Hamilton to Haileybury.

24,000 lbs., rate 34c.....	\$81.60		
T. & N. O., 43%.....	\$35.69	T. & N. O. mileage	108
G. T., 57%.....	46.51	G. T. mileage	255

Hamilton to Englehart.

24,000 lbs., rate 35c.....	\$84.00		
T. & N. O., 46%.....	\$38.64	T. & N. O. mileage.....	138
G. T., 54%.....	45.36	G. T. mileage	255

Hamilton to Timmins.

24,000 lbs., rate 39c.....	\$93.60		
T. & N. O., 50%.....	\$46.80	T. & N. O. mileage	258
G. T., 50%.....	46.80	G. T. mileage	255

Collingwood to Haileybury.

24,000 lbs., rate 32c.....	\$76.80		
T. & N. O., 43%.....	\$33.02	T. & N. O. mileage.....	108
G. T., 57%.....	43.78	G. T. mileage	196

Collingwood to Englehart.

24,000 lbs., rate 33c.....	\$79.20		
T. & N. O., 46%.....	\$36.43	T. & N. O. mileage	138
G. T., 54%.....	42.77	G. T. mileage.....	196

Collingwood to Cochrane.

24,000 lbs., rate 37c.....	\$88.80		
T. & N. O., 50%.....	\$44.40	T. & N. O. mileage	253
G. T., 50%.....	44.40	G. T. R. mileage	196

5. Joiners' Work and House Finishings.

Burk's Falls to Cobalt.

24,000 lbs., rate 23c.....	\$55.20		
T. & N. O., 57%.....	\$31.46	T. & N. O. mileage	103
G. T., 43%.....	23.74	G. T. mileage.....	56

Burk's Falls to Englehart.

24,000 lbs., rate 24c.....	\$57.60		
T. & N. O., 61%.....	\$35.14	T. & N. O. mileage	138
G. T., 39%.....	22.46	G. T. mileage	56

Huntsville to Cobalt.

24,000 lbs., rate 26c.....	\$62.40		
T. & N. O., 50%.....	\$31.20	T. & N. O. mileage.....	103
G. T., 50%.....	31.20	G. T. mileage.....	81

Huntsville to Englehart.

24,000 lbs., rate 27c.....	\$64.80		
T. & N. O., 53%.....	\$34.34	T. & N. O. mileage	138
G. T., 47%.....	30.46	G. T. mileage	81

6. Agricultural Implements—

Hamilton to Haileybury.

20,000 lbs., rate 32c.....	\$64.00		
T. & N. O., 43%.....	\$27.52	T. & N. O. mileage.....	108
G. T., 57%.....	36.48	G. T. R. mileage.....	255

Hamilton to Englehart.

20,000 lbs., rate 33.....	\$66.00		
T. & N. O., 46%.....	\$30.36	T. & N. O., mileage	138
G. T., 54%.....	35.64	G. T. mileage.....	255

Hamilton to Cochrane.

20,000 lbs., rate 37c.....	\$74.00		
T. & N. O., 50%.....	\$37.00	T. & N. O. mileage.....	253
G. T., 50%.....	37.00	G. T. mileage	255

Brantford to Haileybury.

20,000 lbs., rate 33c.....	\$66.00		
T. & N. O., 40%.....	\$26.40	T. & N. O. mileage.....	108
G. T., 60%.....	39.60	G. T. mileage.....	280

Brantford to Englehart.

20,000 lbs., rate 34c.....	\$68.00		
T. & N. O., 42%.....	\$28.56	T. & N. O. mileage.....	138
G. T., 58%.....	39.44	G. T. mileage	280

Brantford to Cochrane.

20,000 lbs., rate 38c.....	\$76.00		
T. & N. O., 46%.....	\$34.96	T. & N. O. mileage.....	253
G. T., 54%.....	41.04	G. T. mileage.....	280

7. Potatoes—

Haileybury, New Liskeard or Uno Park to Hamilton.

30,000 lbs., rate 21c.....	\$63.00		
T. & N. O., 8c.....	\$24.00	T. & N. O. mileage.....	118
G. T., 13c.....	39.00	G. T. mileage.....	255

Thornloe to Englehart, inclusive, to Hamilton.

30,000 lbs., rate 22c.....	\$66.00		
T. & N. O., 9c.....	\$27.00	T. & N. O. mileage.....	138
G. T., 13c.....	39.00	G. T. mileage.....	255

Haileybury, New Liskeard or Uno Park to Toronto.

30,000 lbs., rate 20c.....	\$60.00		
T. & N. O., 8c.....	\$24.00	T. & N. O. mileage.....	118
G. T., 12c.....	36.00	G. T. mileage.....	227

Thornloe to Englehart, inclusive, to Toronto.

30,000 lbs., rate 21c.....	\$63.00		
T. & N. O., 9c.....	\$27.00	T. & N. O. mileage.....	138
G. T., 12c.....	36.00	G. T. mileage.....	227

8. Hay—

Haileybury to Englehart, inclusive, to Chatham.

24,000 lbs., rate 19½c.....	\$46.80		
T. & N. O., 40¢.....	\$18.72	T. & N. O. mileage.....	138
G. T., 60¢.....	28.08	G. T. mileage.....	390

Haileybury to Englehart, inclusive, to Hamilton.

24,000 lbs., rate 16½c.....	\$39.60		
T. & N. O., 46¢.....	\$18.22	T. & N. O. mileage.....	138
G. T., 54¢.....	21.38	G. T. mileage.....	255

Haileybury to Englehart, inclusive, to Toronto.

24,000 lbs., rate 16½c.....	\$39.60		
T. & N. O., 46¢.....	\$18.22	T. & N. O. mileage.....	138
G. T., 54¢.....	21.38	G. T. mileage.....	227

Haileybury to Englehart, inclusive, to North Bay.

24,000 lbs., rate 7½c.....	\$18.00	T. & N. O. mileage.....	138
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Pembroke to North Bay.

24,000 lbs., rate 13c.....	\$31.20	C. P. mileage.....	140
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9. Pulpwood—

Tomiko to Sturgeon Falls.

40,000 lbs., rate 4¾c.....	\$19.00		
T. & N. O., 2½c.....	\$9.00	T. & N. O. mileage.....	27
C. P., 2½c.....	10.00	C. P. mileage.....	23

Cochrane to Ottawa.

40,000 lbs., rate 12½c.....	\$50.00		
T. & N. O., 6c.....	\$24.00	T. & N. O. mileage.....	253
C. P., 6½c.....	26.00	C. P. mileage.....	245

Englehart to Merritton.

40,000 lbs., rate 10½c.....	\$41.00		
T. & N. O., 3½c.....	\$13.00	T. & N. O. mileage.....	138
G. T., 7c.....	28.00	G. T. mileage.....	290

Matheson to Merritton.

40,000 lbs., rate 12c.....	\$48.00		
T. & N. O., 5c.....	\$20.00	T. & N. O. mileage.....	205
G. T., 7c.....	28.00	G. T. mileage.....	290

Cochrane to Merritton.

40,000 lbs., rate 13c.....	\$52.00		
T. & N. O., 6c.....	\$24.00	T. & N. O. mileage.....	253
G. T., 7c.....	28.00	G. T. mileage.....	290

10. Ties, Logs, Lumber, Telegraph and Telephone Poles, and other forest products—

All articles covered by the above heading are now carried under the lumber rates. We have, however, a few commodity rates on ties, as per following examples:

Charlton to North Bay, 7c. per tie, T. & N. O., mileage 146, allowing 100 lbs. per tie; the rate for a similar distance on the C. P. or G. T. would be 8½ cents. Englehart to North Bay, 6c. per tie, T. & N. O., mileage 138; rate for similar distance G. T. or C. P., 8½c.

Lumber or other forest products—

New Liskeard to Toronto.

40,000 lbs., rate 12½c.....	\$50.00		
T. & N. O., 33%.....	\$16.50	T. & N. O. mileage.....	113
G. T., 67%.....	33.50	G. T. mileage.....	227

New Liskeard to Hamilton.

40,000 lbs., rate 13c.....	\$52.00		
T. & N. O., 30%.....	\$15.60	T. & N. O. mileage.....	113
G. T., 70%.....	36.40	G. T. mileage.....	255

Englehart to Brantford.

40,000 lbs., rate 15c.....	\$60.00		
T. & N. O.	\$19.50	T. & N. O. mileage.....	138
G. T.	40.50	G. T. mileage.....	280

Cochrane to Brantford.

40,000 lbs., rate 20c.....	\$80.00		
T. & N. O.	\$39.50	T. & N. O. mileage.....	253
G. T.	40.50	G. T. mileage.....	280

11. Settlers Effects—

Toronto to New Liskeard.

20,000 lbs., rate 20c.....	\$40.00		
T. & N. O., 33%.....	\$13.20	T. & N. O. mileage.....	113
G. T. R., 67%.....	26.80	G. T. mileage.....	227

Toronto to Englehart.

20,000 lbs., rate 22c.....	\$44.00		
T. & N. O.	\$17.20	T. & N. O. mileage.....	138
G. T.	26.80	G. T. R. mileage.....	227

Toronto to Charlton.

20,000 lbs., rate 23½c.....	\$47.00		
T. & N. O.	\$20.20	T. & N. O. mileage.....	146
G. T.	26.80	G. T. mileage.....	227

Toronto to Matheson.

20,000 lbs., rate 25½c.....	\$51.00		
T. & N. O.	\$24.20	T. & N. O. mileage.....	205
G. T.	26.80	G. T. mileage.....	227

Toronto to Cochrane.

20,000 lbs., rate 27c.....	\$54.00		
T. & N. O.	\$27.20	T. & N. O. mileage.....	253
G. T.	26.80	G. T. mileage.....	227

Sarnia to Cochrane.

20,000 lbs., rate 27c.....	\$54.00		
T. & N. O.	\$26.00	T. & N. O. mileage.....	253
G. T.	28.00	G. T. mileage.....	366

12. Cattle and other live stock—

The mileage rates on live stock, other than horses, mules and ponies, on railways in eastern Canada are based approximately on 9th class, schedule A, while the rates for horses, mules and ponies are based on 9th class, standard mileage. When the T. & N. O. adopted schedule A as its standard mileage, it became necessary to reissue our live stock tariff, making the lower basis apply on all live stock. Our rates on live stock, other than horses, mules and ponies, are therefore exactly the same as on other railways, but our rates on horses, mules and ponies are very much less, for example:

Horses—

Toronto to Cochrane.

20,000 lbs., rate 36c.....	\$72.00		
T. & N. O., 15c.....	\$30.00	T. & N. O. mileage.....	253
G. T., 21c.....	42.00	G. T. mileage.....	227

Pembroke to Englehart.

20,000 lbs., rate 28c.....	\$56.00		
T. & N. O., 12c.....	\$24.00	T. & N. O. mileage.....	138
C. P. 16c.....	32.00	C. P. mileage.....	140

During the past year coal, ores and forest products constituted 66.5 per cent. of our entire tonnage, so that it may be seen that if the T. & N. O. rates were as high as on other railways similarly situated our revenue would make a much better showing.

Total amount paid during year for claims, account loss and damage. \$7,560 05

Insurance and other credits 3,733 31

Balance chargeable to loss and damage \$3,826 74

This figures 2-5 of 1 per cent. of gross freight revenue.

Passenger traffic as compared with 1911 shows:

Passengers carried 1911.....	479,102	Revenue.....	\$653,063 01
Passengers carried 1912.....	497,452	Revenue.....	599,681 73

Increase 18,350

Decrease \$53,381 28

The decrease in passenger revenue, although there is an increase in the number of passengers carried, is accounted for by the fact that in 1911 the average distance travelled per passenger was 55.30 miles, while in 1912 it was only 47 miles; also, that conditions in the Porcupine camp are more settled, necessitating less travel.

Statement of all Baggage, Corpses and Bicycles Handled During Fiscal Year 1911-12
at T. & N. O. Ry. Stations.

Stations.	Baggage Received	Baggage Forwarded	Corpses Received	Corpses Forwarded	Bicycles Received	Bicycles Forwarded	Total.
North Bay.....	21,408	22,248	69	2	.....	9	43,702
North Bay Jet	655	5,475	.....	.....	.....	.....	6,130
Widdfield.....	325	223	.....	.....	.....	.....	548
Tomiko.....	1,269	952	.....	3	.....	.....	2,224
Dyer.....	612	457	.....	.....	.....	.....	1,069
Timagami.....	3,012	2,194	.....	1	.....	.....	5,207
Latchford.....	1,991	2,083	.....	4	.....	.....	4,078
Gillies Depot.....	611	716	.....	.....	.....	.....	1,327
Cobalt.....	13,366	13,160	3	14	4	4	26,551
North Cobalt.....	1,127	1,139	.....	3	.....	.....	2,269
Haileybury.....	11,734	12,452	4	10	2	5	24,207
New Liskeard.....	7,318	8,342	1	17	8	9	15,695
Uno Park.....	485	283	.....	.....	2	1	771
Thorndoe.....	741	567	.....	.....	.....	.....	1,308
Earlton.....	1,691	1,152	.....	2	1	.....	2,816
Heaslip.....	735	437	.....	1	1	.....	1,174
Englehart.....	4,637	5,943	1	.....	1	1	10,583
Charlton.....	1,728	1,299	.....	.....	.....	.....	3,027
Dane.....	1,259	818	.....	.....	.....	1	2,078
Swastika.....	1,401	1,447	.....	.....	.....	.....	2,848
Matheson.....	1,511	1,197	.....	.....	.....	.....	2,708
Iroquois Falls.....	1,309	1,252	.....	.....	.....	2	2,563
Porcupine.....	3,581	3,410	.....	5	.....	1	6,997
South Porcupine..	7,754	7,992	1	11	.....	.....	15,758
Schumacher.....	800	728	.....	.....	.....	.....	1,528
Timmins.....	1,816	1,481	.....	1	.....	.....	3,298
Cochrane.....	9,841	6,563	2	7	5	.....	16,418
Total 1911-1912..	102,717	104,010	81	81	24	33	206,912
Total 1910-1911..	111,674	104,764	216	37	16	25	216,732
Decrease.....	8,957	754	135	.....	.....	.....	9,820
Increase.....	.....	.....	.....	44	8	8	.....

Claims.

Claims received—20. Amount.....	\$596 45	
9 Paid. Amount claimed for	250 45	—Settled for 198.15
3 Declined.....	14 00	
1 Awaiting withdrawal	170 00	—(Baggage strayed with connections— Since received).
2 Authority to Voucher chargeable to Insurance Co	50 00	
3 C.P. Rly. solely interested	24 00	
2 Under investigation.....	88 00	
	596 45	\$198 15
Credit, \$10 00		10 00
		\$188 15—Net amount paid

Land Department Report.

Showing assistance by donation and otherwise to towns along line.

North Bay.

The Commission make a yearly grant of \$100.00 to the Victoria Memorial Hospital; and pay one cent extra, that is, seven cents per thousand gallons for water supplied locomotives and shops, in lieu of taxes on property in the town.

Freight shed and town siding driveways have been coated with fourteen cars of cinders, and Regina Street from freight shed to Main Street improved in like manner.

Golf Street, from C. P. R. tracks to Main Street, raised with sand filling from Feronia pit, and William Street raised to correspond with new level of Golf Street.

New roadway to general stores graded and drained, thus providing access to stores building from McIntyre Street.

Trout Lake.

In the year 1908 a tunnel was constructed under railway track for accommodation of school children, et al, at a cost of \$529.38.

Timagami.

Block "A," consisting of two and one-half acres, valued at \$500.00 set aside for park purposes: two full lots valued at \$75.00 each set aside for school, and two lots, valued at \$75.00 each, sold to churches for \$30.00 each or forty per cent (40 per cent.) of upset prices.

During the month of November, 1912, 213 cars of material from Rabbit Creek pit, Mileage 58½, were used for filling in at rear of station, at a cost of \$1,174.45.

Amounts expended on Townsite, as of October 31st, 1912:

Surveys	\$1,119 07	
Clearing	1,125 00	
		\$2,244 07

Latchford.

In addition to donation of money each year, \$200.00, the following land has been given to Town on conditions named:

- 10 acres—Park Purposes, Free, valued at \$2,000.00.
- 3 lots—Public School, valued at \$350.00.
- 6 lots—Churches, 40 per cent. Upset price, viz., \$268.00.
- 4 acres—Cemetery, Price \$400.00 payable when plots sold.

Amounts expended on Townsites, as of Oct. 31st, 1912:

Surveys	\$1,166 38	
Clearing, etc.	5,421 45	
Park	1,173 63	
		\$7,771 46

Cobalt.

A donation of money is made to the Town each year by the Commission, of \$1,200.00 and \$100.00 to Mines Hospital, one lot valued at \$100.00 sold to town for municipal purposes for \$200.00; two lots valued at \$100.00 each granted for public works; three lots for public school, price \$400.00; and six lots sold to churches for forty per cent. (40 per cent.) of upset price, viz., \$860.00.

Amounts expended on Townsite, etc., as of Oct., 31st, 1912:

Surveys	\$3,681 12	
Clearing, etc.	1,332 94	
Streets	1,659 63	
Improvements Public Square, retaining wall, steps, etc.	6,487 81	
		\$13,161 50

Six cars gravel hand loaded at pit, Mileage 58½, at a cost of \$32.40, and delivered free for repairs to Commission Street, in addition to broken stone delivered free from the Mines at Cobalt for coating station roadways.

Haileybury.

The streets upon which the Nipissing Central Railway operate under franchise have been graded and are being coated with gravel at the expense of the N. C. R. as work progresses and will be completed early in summer of 1913.

Sixteen cars of gravel delivered from Cassidy pit for town streets at actual cost, \$31.83.

Water is supplied by town for station use at a cost of \$16.99 per quarter.

North Cobalt.

Thirty-five (35) cars of gravel delivered free at North Cobalt for township roads, cost, \$134.75.

New Liskeard.

Annual Donation \$100.00 to Lady Minto Hospital.

The streets upon which the Nipissing Central Railway operate have been graded and are being coated with gravel in the same manner as at Haileybury.

Sixteen cars of gravel and five cars crushed stone delivered at New Liskeard for station roadways, besides being coated with crushed stone from mines at Cobalt.

Under date of April 29th, 1911, Special Rate Notice was issued to cover rate of one-half cent per ton per mile, minimum \$5.00 per car on stone, Cobalt to New Liskeard, this stone being used on town streets.

Water is supplied by town to tank and station at a rate of eight cents per thousand gallons.

Uno Park.

Sixteen cars ballast delivered free at Uno Park for township roads, cost, \$76.80.

Thoruloe.

Thirty-one (31) cars gravel delivered free at Thoruloe for township roads, cost, \$148.80.

Heaslip.

Station roadways coated with cars of cinders.

Englehart.

Fifty-four cars ballast, costing \$259.20, delivered free to Englehart for town streets; eleven cars cinder ballast for freight shed roadways; one car ballast from Dane Pit for station roadways, and roadway to pumphouse at river bank graded and put into shape for traffic of vehicles. Water for household purposes delivered free to town from tank.

Amounts expended on townsite, etc., as of Oct. 31st, 1912.

Surveys	\$453 41	
Clearing, etc.	1,693 48	
Grading, ...	603 60	
Parks	860 36	
Pavements	468 95	
Wells—Water Supply	10,524 09	
		<u>\$14,603 89</u>

An appropriation of \$248.00 for 1913 has been made for construction of concrete sidewalk on north side of street leading from station, and work will be gone ahead with early in the spring.

One lot for gaol, three lots for school purposes, six blocks for park, and O'Neil Building for Agricultural Hall, valued at \$150.00, \$350.00, \$3,000.00 and \$300.00 respectively have been given free to town; in addition to fourteen (14) lots sold to churches for forty per cent. (40 per cent.) of upset price, viz., \$620.00, and ten acres for Agricultural Grounds for \$1,500.00, payable in yearly installments of \$50.00.

Dane.

Amount expended on townsite for surveys, \$540.80.

Swastika.

Four cars of sand from Dane Pit, and four cars cinders from Englehart for improvement station roadways.

Matheson.

Block "D." for gaol, Blocks "A," "B," "C," and "E," for park, and four lots for school purposes, valued at \$500.00, \$2,000.00 and \$490.00 respectively have been given free to town, and five lots sold to churches for forty per cent. (40 per cent.) of upset price, viz., \$272.00.

Amounts expended on Townsite, etc., as of Oct. 31st, 1912:

Surveys	\$615 00	
Wells	364 00	
Clearing, etc.	1,200 00	
		<u>\$2,179 00</u>

Twenty flat cars and two Hart cars of ballast from Dane pit delivered for station roadways, and twelve Hart cars ballast from Cassidy pit, costing \$72.00 delivered free for town streets.

Monteith.

Two lots valued at \$140.00 given free for schools, and two lots sold for church purposes at forty per cent. (40 per cent.) of upset price, viz., \$40.00.

Amounts expended on townsite, as of Oct. 31st. 1912:

Surveys	\$217 00	
Clearing, etc.	720 00	
		\$937 00

Kelso.

One hundred and eighty-two (182) cars of ballast supplied free for townsite streets at a cost of \$164.40.

Iroquois Falls.

Three lots reserved for school purposes, one acre free to Union School, six lots reserved for church purposes and block No. 1 reserved for general purposes, valued at \$280.00, \$300.00, \$610.00, and \$200.00 respectively; lots for church purposes to be sold for forty per cent. (40 per cent.) of upset price, viz., \$256.00.

Amounts expended on townsite, as of Oct. 31st, 1912:

Surveys	\$4,724 98	
Clearing, etc	3,243 46	
		\$7,968 44

Cochrane.

Five lots for municipal and other purposes, value \$1,250.00; two lots for school purposes, value \$600.00; two points for park, value, \$2,000.00, and two lakes given to town; twenty-three (23) lots for churches at forty per cent (40 per cent.) of upset price, viz., \$1,040.00 and twenty-five (25) acres, valued at \$10,000.00 for recreation purposes at a price of \$2,500.00.

Amounts expended on Townsite, etc., as of Oct. 31st, 1912.

Surveys	\$4,681 49	
Clearing, etc.	8,828 85	
Wells	468 93	
Lumber for sidewalks	2,922 27	
Spikes for sidewalks	208 69	
Freight on above	370 75	
		\$17,480 98

Seven cars of gravel and three cars of boulders delivered free for town streets at a cost of \$52.80; thirty-six (36) cars gravel from Nellie Lake pit and fifteen (15) cars cinders for station roadways.

Tisdale Township.

Twenty-six cars of gravel supplied from Barber's Bay pit for township roads at actual cost, viz., \$147.49.

Lakeview.

Thirty cars of gravel delivered G. W. Bennett, Supt., Colonization Roads, for roads in Porcupine district, at actual cost, \$94.13.

Whitney Township.

Thirteen cars of gravel delivered for township roads at actual cost, viz., \$62.43.

South Porcupine.

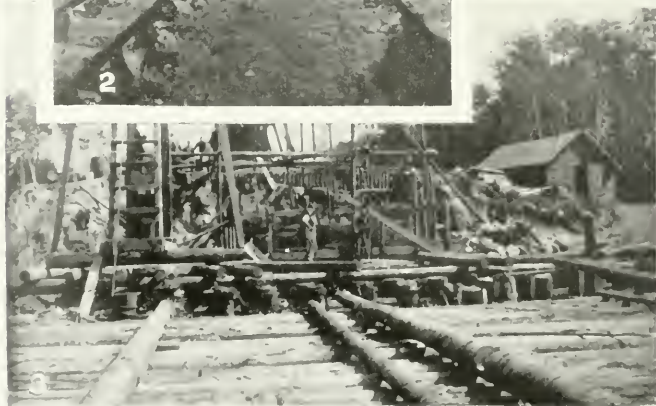
Fifteen cars of gravel delivered for streets of town at cost, viz., \$85.09.

Porcupine-Cochrane Fire Losses

Interline tickets, T. & N. O., <i>et al.</i>	\$1,093 10
Local tickets <i>ex</i> Porcupine	2,802 50
Estimated number of passengers travelling without tickets, average distance 175 miles: 800 at \$5.25 each	4,200 00
Acct., N. Chamandy, feeding sufferers	10 00
Acct., Jamieson Meat Co., feeding sufferers	3 00
Telegrams sent for Relief Committee	248 94
Meals supplied by B. & B. Boarding Car	274 80
Acct. Gordon Davies Co., supplies	8 50
Acct., Cobalt Bakery, supplies	2 50
Telephone Account	4 70
Estimated cost of running special trains	850 12
Net loss, Porcupine Branch stock	23,702 22
T. & N. O. equipment destroyed	2,805 66
Engineers' Fire Losses	220 25
Estimated freight and supplies for sufferers	500 00
Total	<u>\$36,726 29</u>

Sidings for Settlers.

During the year 1912. Long Lake siding at Charlton was extended 1,255 feet to Government wharf; new spur siding 251 feet in length installed at Wawbewawa: spur siding at Mileage 132 now under construction, and it is proposed to instal siding at Mileage 217 at an early date.



1. Iroquois Falls.
2. Rock cut to end of Pear Lake.
3. East Abutment, Bridge Montreal River, Elk Lake Branch.

Preliminary Report on the Mining Industry in that part of Northern Ontario served by the Temiskaming and Northern Ontario Railway, Calendar year 1912

By ARTHUR A. COLE, Mining Engineer.

GOLD.

Porcupine.

The year 1912 marks an important advance in the development of the Porcupine gold mining district. The outstanding feature is the commencement of gold production by several mills, the most noteworthy being the Dome and the Hollinger. The result is shown in the gold production, of which the estimated value for the year is \$1,800,000. The actual gold production from the district as given by the Ontario Bureau of Mines is as follows:

Year.	Ore treated.	Gold bullion.	Value.
1910	1,060 tons.	1,947 ozs.	\$35,539
1911	707 "	851 "	17,187
1912 (9 months).....	88,466 "	50,633 "	1,032,313
	90,233 tons.	53,431 ozs.	\$1,085,039

The small productions shown for the years 1910 and 1911 came from the small experimental plants of the Hollinger, Dome and Vipond, but all three were destroyed in the forest fires of 1911.

The new mills that have since been erected, and are responsible for the 1912 production are:

1. Dome.
2. Hollinger.
3. McIntyre.
4. Vipond.

while those now under construction are:

5. Dome Lake.
6. McEnaney (Crown Reserve Min. Co.)

Dome.

From the 23rd March, when the mill started, to the 1st November, the mill treated 65,000 tons. The average daily capacity is 333 tons, but this is soon to be increased to 425 tons, and further additions are contemplated.

Hollinger.

With only 30 of the 40 stamps working, the daily capacity of the Hollinger mill is now over 300 tons, but it is expected to be able to increase the mill's capacity to 500 tons in the near future.

The mill is making a net profit of \$40,000 weekly, which enables the company to pay a 3 per cent. dividend every four weeks, amounting to \$90,000, and at the same time to set aside \$70,000 towards a reserve fund. The first dividend was paid on Nov. 2nd, and the second on Nov. 30th.

McIntyre.

A 10 stamp mill started operations on 1st March, 1912, and up to November 1st, treated 11,200 tons of free milling ore.

It was found that the ore became less free milling with depth, so a 300 ton cyanide plant is under construction, the first unit of 150 tons to be ready for operation 1st January, 1913.

Vipond.

The 100 ton mill started operations 7th July, 1912, and had treated 6,000 tons of ore by the end of October. Extraction which was dependent entirely on plate amalgamation, was found to be low, and extensions are under way adding a cyanide plant to the present mill.

The Dome Lake mill is to contain 10 stamps, and the McEnaney 5 stamps to begin with, later to be increased to 10 stamps.

The year's operations in the district have been highly satisfactory. Development has in almost every case bettered the physical condition of the properties that had anything like fair prospects to start with.

Swastika.

Work has been continued at the Swastika and Lucky Cross properties and the companies now consider they have enough ore blocked out to warrant the erection of small mills. These are now nearing completion.

A group of claims known as the "Tough" properties, situated about 7 miles east of Swastika are being opened up, and are looking well, the veins being rich but narrow.

Larder Lake.

One property, the "Goldfields, Limited" recently started its 10 stamp mill, and this is the only operating mill in the Larder Lake district.

SILVER.

The silver production from Cobalt area for 1912, including in this the Gowganda and South Lorrain districts, will probably be 30,000,000 ounces, valued at \$17,000,000. This will be a falling off in actual production, of 1½ million ounces, compared with 1911, but on account of the increased price of silver, the value shows an increase of about \$1,000,000.

Cobalt.

Development for the year 1912 has been along the usual lines. An interesting feature is the opening up of a number of properties that have been closed for a number of years. Perhaps the most noteworthy find during the year was the discovery of a rich vein on the 200 ft. level of the Seneca Superior, a lode from the Peterson Lake Mining Company, under Cart Lake. This find was made on the 10th October, and since that time one car of high grade ore has been shipped averaging about 3,000 ounces, and 5 cars of screenings which will run between 100 and 200 ounces. This ore is all in Huronian conglomerate. A similar, but larger find was made at the Casey-Cobalt Mine, 9 miles north-east of New Liskeard, which will bring this property into prominence with a production this year of 1,000,000 ounces.

The Beaver Mine in south-east Coleman has a shaft down over 700 feet, its workings on the 700 ft. level being the deepest in the district. The shaft passed from the Keewatin greenstones into the underlying diabase, where good milling values are found along with some rich ore.

Gowganda and South Lorrain.

In the small silver bearing districts, the Wettlaufer at South Lorrain, and the Miller Lake-O'Brien at Gowganda are regular shippers, while development on the Mann Mine of Gowganda is bringing it into prominence.

Dividends.

One company, the Cobalt Townsite, has been added to the list of dividend payers, while the Cobalt Lake Company has declared its first dividend amounting to 2½ per cent. payable 2nd January, 1913.

Mills.

Three new reduction mills were put into operation in 1912, belonging to the Nipissing, Beaver and Casey. Recently also the Buffalo has followed the lead of the Nipissing Company, and has installed a mill for treating its high grade products. The processes are similar, being an amalgamation of the silver in a very strong 5 per cent. solution of cyanide.

Elk Lake Extension.

The construction of a branch of the railway into Elk Lake has had the effect of reviving considerable mining activity in this district, and the development during the next 12 months should show up to some extent the value of this section of the country.

NICKEL.

The Alexo Mine, situated one-half mile from Kilburn, on the Porcupine Branch of the T. & N. O. Railway, is the only operating nickel property in the district.

The shipments from this property during the year to the 30th November were:

May	247.85 tons
June	211.30 "
Sept	294.60 "
Oct	261.95 "
Nov	300.65 "

1,316.35 tons

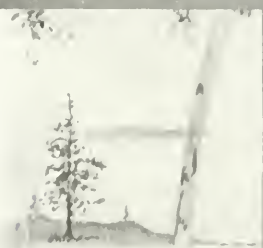
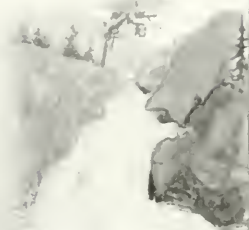
The whole of this ore was consigned to the Mond Nickel Company of Victoria Mines, Ont. Practically all this ore has been extracted by quarrying or open cut work.

COPPER.

Dane.

A test lot of 20 tons of copper ore was shipped by the Dane Mining Company, of Dane, Ont., in September, to the United States Metals Refining Company, of Chrome, N. J.

Copper prospecting has not yet proved remunerative in this part of Northern Ontario. Some rich pockets of ore have been found, but they have all proved small.



1. First train across Jean Baptiste Trestle, Elk Lake Branch.
2. Looking towards Earleton.
3. Pile-driving, Jean Baptiste Trestle.

NIPISSING CENTRAL RAILWAY

ANNUAL REPORT OF CHIEF ENGINEER AND SUPERINTENDENT OF MAINTENANCE.

Year Ending October 31st, 1912.

S. B. CLEMENT, C. E. & S. OF M.

NEW LISKEARD EXTENSION.

This extension is now under construction, but it is anticipated that a service can be established between New Liskeard and Haileybury on November 2nd, 1912. This extension is along the east side of the Lake Shore Road to the north limit of the town of Haileybury, where connection is made with the Haileybury spur of the T. & N. O. Railway. The Haileybury spur and an independent track on the main line right-of-way, as far as New Liskeard, have been leased from the T. & N. O. Railway. At the south limit of New Liskeard the tracks leave the T. & N. O. right-of-way, and are laid on the Lake Shore Road, Paget Street, Whitewood Avenue and Armstrong Street to a terminus at the Wabis River.

A freight spur line serving the Haileybury wharf, and market, C. H. Foster's mill, and the Haileybury Brick Company's yard is also under construction. This spur line will enable the Nipissing Central Railway to handle carload freight to or from the T. & N. O. Railway.

Agreements permitting the use of streets by the Nipissing Central Railway have been entered into with the towns of Haileybury and New Liskeard, and the Township of Dymond.

COBALT TO NORTH COBALT.

Arrangements have been made to lease one track of the T. & N. O. Railway, between Cobalt and North Cobalt. This will be used as an entrance to Cobalt and the present tracks will be removed, resulting in greater economy in operation and better service to the public. Under the new arrangements which will be about the first of the year, the Cobalt Station of the T. & N. O. Railway will be the Cobalt terminus of the Nipissing Central Railway.

EQUIPMENT.

Two new vestibule cars have been ordered from the Preston Car and Coach Company and will be delivered about January 1st, 1913. These cars are slightly larger than the cars now in use, and are subdivided into smoking and general compartments.

Additional substation equipment and material for transmission line and feeders has been necessary on account of increased mileage to be operated.

NORTH TIMISKAMING EXTENSION.

The New Liskeard Board of Trade presented a petition for an extension of the Nipissing Central Railway to North Timiskaming. A reconnaissance indicated that the most favorable locations would be as shown on the accompanying plan of the Nipissing Central Railway and proposed extension.

FINANCIAL STATEMENTS.

GENERAL BALANCE SHEET.

ASSETS.		LIABILITIES.	
<i>Property Owned:—</i>		<i>Debit:—</i>	
Cost of Road to Oct. 31, '11.....	\$15,321,505 08	Provincial Loan Account.....	\$18,746 451 99
Cost of Road to Oct. 31, '12.....	1,213,889 42		
	<u>\$16,535,394 50</u>	<i>Working Liabilities:—</i>	
Cost of Equipment to Oct. 31, '11.....	1,883,416 90	Accounts Payable, Inc. Pay Rolls.....	\$373,474 42
Cost of Equipment to Oct. 31, '12.....	108,068 13	Car Mileage and Per Diem Balance.....	2,041 12
	<u>1,991,485 03</u>	Foreign Ticket Balance.....	11,456 37
<i>Working Assets:—</i>		Foreign Freight Balance.....	270 99
Cash.....	91,770 81	Foreign Telegraph.....	3,512 21
Accounts Collectible.....	311,377 28	Unclaimed Wages.....	2,900 65
Agents and Conductors.....	11,020 34	Deposit on Sidings.....	7,165 02
Material and Supplies.....	261,009 51	Deposit on Contracts.....	20,655 78
	<u>675,177 94</u>	Operating Reserves for Equipment.....	37,668 36
			<u>459 144 92</u>
<i>Deferred Debit Items:—</i>		<i>Free Surplus:—</i>	
Paymaster's Advance.....	7,000 00	Profit and Loss—Balance.....	338 286 03
Treasurer's Advance.....	50 00		
Insurance Paid in Advance.....	15,331 76		
Accounts in Suspense.....	44,948 10		
	<u>67,329 86</u>		
Land Acqul.....	39,011 80		
Nipissing Central Railway Company.....	235,483 81		
	<u>\$19,543,882 94</u>		<u>\$19,543 882 94</u>
<i>PROFIT AND LOSS.</i>			
Paid Treasurer of Ontario.....	\$510,000 00	By Balance, October 31st, 1911.....	\$316,252 72
Balance Carried Forward.....	338,286 03	By Townsites.....	77,831 57
	<u>\$848,286 03</u>	By Revenue.....	454,201 74
			<u>\$848,286 03</u>

STATEMENT SHOWING AMOUNT EXPENDED ON CONSTRUCTION.

Year Ended October 31st, 1912.

Engineering	\$51,401 15
Right of way and station grounds	14,780 84
Grading	465,531 63
Bridges, trestles and culverts	106,077 60
Ties	35,617 79
Rails	88,378 19
Frogs and switches	6,627 54
Track fastenings and other material	28,613 45
Ballast	138,859 38
Track-laying and surfacing	62,762 38
Roadway tools	381 36
Fencing right of way	6,820 78
Crossings and signs	262 03
Telegraph and telephone	984 85
Station buildings and fixtures	41,637 55
Shops, engine houses and turntables	1,226 84
Shop machinery and tools	43 06
Water stations	1,406 35
Miscellaneous structures	10,054 84
Transportation of men and materials	219 74
Rent of equipment	14,240 57
Repairs of equipment	2,291 36
Legal expenses	2,000 00
Insurance	9,868 91
Stationery and printing	477 40
Other expenditure	2,326 66
Total Construction	\$1,092,892 25

AMOUNT EXPENDED ON ELK LAKE SURVEY AND BRANCH

For the Year Ended October 31st, 1912.

Engineering expenses	\$21,065 86
Right of way	8,321 50
Grading	112,624 32
Bridges, trenches and culverts	56,087 49
Rails	67,308 74
Track material	14,819 79
Track laying and surfacing	10,147 55
Ties	21,078 13
Ballast	33,359 10
Frogs and switches	2,694 47
Crossings and signs	71 73
Fencing right of way	4,593 17
Telegraph and telephone	1,085 23
Water stations	990 05

Total Elk Lake Survey and Branch \$354,256 13

STATEMENT SHOWING AMOUNT EXPENDED ON CONSTRUCTION OF
PORCUPINE BRANCH.

Year Ended October 31st, 1912.

Engineering	\$6,513 37
Right of way and station grounds	1,449 34
Grading	77,162 79
Bridges, trestles and culverts	21,304 64
Ties	9,899 96
Rails	16,043 67
Frogs and switches	2,167 27
Track fastenings and other material	2,256 79
Ballast	59,070 25
Track laying and surfacing	22,691 88
Roadway tools	327 23
Telegraph and telephone	3,689 43
Station buildings and fixtures	15,929 84
Water stations	402 38
Transportation of men and materials	219 74
Rent of equipment	14,240 57
Repairs of equipment	2,291 36
Stationery and printing	485 91
Insurance	9,868 91
Other expenditure	2,297 59
Total Porcupine Branch	<u>\$268,312 92</u>

STATEMENT SHOWING AMOUNT EXPENDED ON ADDITIONS AND
BETTERMENTS

Year Ended October 31st, 1912.

Right of way and station grounds	\$16,761 11
Widening cuts and fills	1,298 89
Protection of banks	6,729 37
Grade revisions and changes of line	1,239 75
Track fastenings and other material	10,938 61
Additional main tracks	33,612 02
Sidings and spur tracks	14,812 13
Fencing right of way	5,341 26
Improvement of grade crossings	131 38
Telegraph and telephone lines	13,627 94
Station buildings and fixtures	12,473 08
Shop machinery and tools	2,588 02
Equipment	1,399 23
Interest and commissions	44 38
Total additions and betterments	<u>\$120,997 17</u>

Expended on construction, 1912	\$1,092,892 25
Expended on additions and betterments, 1912	120,997 17
Expended on equipment, 1912	108,068 13
	<u>\$1,321,957 55</u>

Comparative Statement, Fiscal Years, 1911 and 1912

EARNINGS AND EXPENDITURES

	1911.	1912.
Revenue from Transportation :	\$ c.	\$ c.
1. Freight revenue	974,678 33	929,464 66
2. Passenger revenue	653,063 01	599,681 73
3. Excess baggage revenue	6,758 44	7,129 95
4. Parlor and chair car revenue	1,578 30	1,593 35
5. Mail revenue	15,980 59	20,229 29
6. Express revenue	47,557 44	47,010 31
7. Milk revenue (passenger trains)	449 48	612 03
9. Switching revenue	5,356 57	10,082 97
10. Special service train revenue	1,691 30	2,731 15
11. Miscellaneous transportation revenue	1,135 56	.....
Total	\$1,708,249 02	\$1,618,535 44
Revenue from Operation other than Transportation :		
12. Station and train privileges	3,432 01	3,996 32
14. Storage—Freight	987 78	831 73
15. Storage—Baggage	986 33	1,064 25
16. Car service—Demurrage	7,262 36	10,898 15
17. Telegraph and telephone	43,182 19	31,279 56
18. Rent of buildings and other property	14,693 93	36,188 32
19. Miscellaneous	2,171 21	4,656 30
Total	\$72,715 81	\$88,914 63
Total Revenue	\$1,780,964 83	\$1,707,450 07
Expenditures :		
1. Maintenance of way and structures	353,918 92	346,964 01
2. Maintenance of equipment	164,145 69	249,683 22
3. Traffic expenses	17,705 31	17,461 22
4. Transportation expenses	567,316 97	676,963 33
5. General expenses	78,911 74	93,625 91
Total Operating Expenses ..	\$1,181,998 63	\$1,384,697 69
Balance	\$598,966 20	\$322,752 38
Other Income :		
Ore royalties	17,060 56	135,500 31
Equipment rental	6,283 93	10,825 37
	\$622,310 69	\$469,078 06
Deduction from Income :		
Hire of equipment	25,364 69	11,480 53
Outside operations	3,793 31	3,395 79
Net Result	\$593,152 69	\$454,201 74

Comparative Statement, Expenses, Fiscal Years 1911 and 1912.
MAINTENANCE OF WAY AND STRUCTURES.

	1911 From Nov. 1, 1910, to Oct. 31, 1911	1912 From Nov. 1, 1911, to Oct. 31, 1912	Accounts.	1911 From Nov. 1, 1910, to Oct. 31, 1911	1912 From Nov. 1, 1911, to Oct. 31, 1912
November, ...	\$ 19,951 46	\$ 22,821 12	Superintendence.....	17,766 25	23,386 40
December	15,598 77	20,619 41	Ballast.....	25,201 19	10,968 86
January.....	18,841 90	23,537 65	Ties.....	32,655 77	33,607 64
February.....	18,202 43	20,909 69	Rails.....	13,429 72	5,937 36
March.....	13,950 32	21,398 65	Track material.....	6,062 80	5,851 83
April.....	18,422 02	22,788 35	Roadway and track.....	164,585 66	179,742 17
May.....	32,714 93	37,943 57	Removal snow, sand, etc.....	21,137 41	23,300 74
June.....	49,132 39	33,313 04	Bridges, trestles and culverts.....	18,690 07	13,764 15
July.....	52,165 66	31,631 48	Under grade crossing.....	8 35	20 32
August.....	48,047 31	37,333 97	Grade crossings, fences.....	6,276 12	4,788 21
September.....	38,462 26	37,237 61	Snow and sand fences.....	78 42	.....
October.....	28,429 47	37,429 47	Signals and interlocking plants.....	18 14	66 92
			Telegraph and telephone lines.....	5,211 51	9,705 72
			Electric power transmission.....	448 35	.....
			Buildings, fixtures and grounds.....	37,310 77	33,961 65
			Roadway tools and supplies.....	4,345 02	7,403 46
			Injuries to persons.....	110 50	636 00
			Stationery and printing.....	532 87	610 46
			Other expenses.....	50 00	.....
			Maintaining joint tracks, yards and facilities, Dr.....	.....	Cr. 660 41
			Maintaining joint tracks, yards and facilities, Cr.....	.....	Cr. 6,147 47
	353,918 92	346,964 01		353,918 92	346,964 01

Comparative Statement, Expenses, Fiscal Years 1911 and 1912.
MAINTENANCE OF EQUIPMENT.

	1911		1912		Accounts.	1911		1912	
	From Nov. 1, 1910, to Oct. 31, 1911.		From Nov. 1, 1911, to Oct. 31, 1912.			From Nov. 1, 1910, to Oct. 31, 1911.		From Nov. 1, 1911, to Oct. 31, 1912.	
	\$	c.	\$	c.		\$	c.	\$	c.
November	11,662	49	22,673	40	Superintendence	9,200	80	11,568	16
December	12,211	66	21,475	88	Steam locomotives, repairs	67,903	89	90,416	90
January	13,643	98	25,200	24	Steam locomotives, renewals .....	.....	.....	12,161	38
February	13,863	22	19,396	38	Steam locomotives, depreciation .....	.....	.....	36,248	20
March	16,036	33	23,246	52	Passenger train cars, repairs	29,408	94	.....	.....
April	14,401	85	24,183	12	Passenger train cars, renewals .....	.....	.....	10,269	88
May	13,258	27	22,511	91	Passenger train cars, depreciation .....	.....	.....	39,642	12
June	12,480	33	18,814	51	Freight cars, repairs	19,125	62	Cr. 1,812	50
July	11,710	75	18,489	97	Freight cars, renewals	Cr. 401	43	11,492	80
August	13,202	91	18,144	85	Freight cars, depreciation .....	.....	.....	11,629	39
September	14,306	08	16,780	78	Work equipment, repairs	15,907	73	Cr. 54	78
October	17,367	82	18,765	66	Work equipment, renewals .....	.....	.....	2,738	56
					Work equipment, depreciation .....	.....	.....	4,352	83
					Shop machinery and tools	5,146	98	15	13
					Injuries to persons .....	.....	.....	636	74
					Stationery and printing	Cr. 166	53	1,261	49
					Other expenses .....	.....	.....	.....	.....
	164,145	69	249,683	22		164,145	69	249,683	22

Comparative Statement, Expenses, Fiscal years 1911 and 1912

TRAFFIC EXPENSES

Month.	1911 From Nov. 1, 1910 to Oct. 31, 1911	1912 From Nov. 1, 1911 to Oct. 31, 1912	Accounts	1911 From Nov. 1, 1910 to Oct. 31, 1911	1912 From Nov. 1, 1911 to Oct. 31, 1912
November.....	1,121.88	1,151.49	Superintendence.....	9,065.98	9,579.62
December.....	1,456.85	1,320.04	Outside Agents.....	85.45	487.34
January.....	1,207.19	1,285.43	Advertising	5,366.89	3,625.24
February	1,349.80	1,573.32	Traffic Associations.....	103.79	15.00
March.....	1,442.71	1,705.91	Industrial and Immigration Bureaus..	1,298.17	1,972.25
April.....	1,282.89	1,355.18	Stationery and Printing.....	1,785.03	1,781.77
May	1,448.11	1,205.55			
June.....	2,708.66	1,118.81			
July.....	1,678.69	1,765.83			
August.....	1,278.66	1,791.12			
September.....	1,527.88	2,086.54			
October	1,201.99	1,102.00			
	\$17,705.31	\$17,461.22		\$17,705.31	\$17,461.22

Comparative Statement, Expenses, Fiscal Years 1911 and 1912
TRANSPORTATION EXPENSES.

Month.	From Nov. 1, 1910 to Oct. 31, 1911		From Nov. 1, 1911 to Oct. 31, 1912		Accounts.	From Nov. 1, 1916 to Oct. 31, 1911		From Nov. 1, 1911 to Oct. 31, 1912	
	\$	c.	\$	c.		\$	c.	\$	c.
Nov.	39,043	54	59,306	23	Superintendence.....	10,125	86	10,328	86
Dec.	47,278	14	67,326	02	Dispatching trains.....	10,021	48	12,125	82
Jan.	56,912	37	64,432	47	Station employees.....	81,435	39	113,820	41
Feb.	46,646	48	56,609	09	Car service association.....	243	20	277	86
March.....	47,149	82	62,683	28	Coal and ore docks.....	15	00	829	02
April.....	38,792	45	51,472	42	Station supplies and expenses.....	13,102	46	14,792	14
May.....	40,063	70	54,005	66	Yardmasters and their clerks.....	2,468	51	11,519	77
June.....	39,083	80	50,848	91	Yard conductors and brakemen.....	17,587	05	35,764	17
July.....	45,641	24	50,462	29	Yard switch and signal tenders.....	728	97	1,977	27
Aug.....	53,473	93	53,884	72	Yard supplies and expenses.....	195	33	738	72
Sept.....	57,780	55	51,880	06	Yard enginemen.....	10,736	98	20,123	48
Oct.....	55,450	95	54,652	18	Yard enginehouse expenses.....	4,061	11	7,147	38
					Yard locomotives, fuel.....	19,069	72	36,741	52
					Yard locomotives, water.....	920	55	873	46
					Yard locomotives, lubricants.....	375	80	717	74
					Yard locomotives, supplies.....	189	99	270	81
					Operating joint yards and terminals, for.....	30,539	58	16,519	57
					Operating joint yards and terminals, Cr.....			68,554	73
					Road enginemen.....	60,097	42	67,803	69
					Road enginehouse expenses.....	18,329	43	33,052	99
					Road locomotives, fuel.....	171,782	02	204,242	47
					Road locomotives, water.....	10,839	81	17,884	13
					Road locomotives, lubricants.....	2,315	32	3,930	29
					Road locomotives, supplies.....	1,210	90	1,196	08
					Road trainmen.....	68,612	80	78,142	12
					Train supplies.....	17,885	19	28,742	14
					Clearing wrecks.....	3,899	90	5,007	56
					Telegraph and telephone operation.....	442	55	2,319	27
					Stationery and printing.....	10,251	08	12,012	26
					Other expenses.....	622	61	365	33
					Loss and damage, freight.....	1,463	62	2,028	10
					Damage to property.....	50	00	4	00
					Loss and damage, baggage.....	18	50	22	50
					Damage to stock on Right of Way.....	382	84	942	72
					Injuries to persons.....	2,707	00	4,252	45
					Operating joint tracks.....	40	00		
						567,316	97	676,463	33

Comparative Statement, Expenses, Fiscal years 1911 and 1912.
GENERAL EXPENSES.

Month.	1911		Accounts.	1912	
	From Nov. 1, 1910, to Oct. 31, 1911.	From Nov. 1, 1911, to Oct. 31, 1912.		From Nov. 1, 1911, to Oct. 31, 1912.	From Nov. 1, 1911, to Oct. 31, 1912.
	\$	\$		\$	\$
November	5,592 40	8,034 33	Salaries and expenses of general officers	17,073 72	17,695 66
December	7,636 67	7,044 64	Salaries and expenses of clerks and attendants	25,073 24	32,849 85
January	5,413 93	8,939 17	General office supplies and expenses	4,669 02	5,179 03
February	6,313 31	7,789 43	Law expenses	5,984 18	10,445 93
March	7,200 24	6,918 76	Insurance	22,679 35	23,807 39
April	5,764 92	7,938 55	Stationery and printing	1,470 16	3,174 42
May	6,009 97	7,923 61	Other expenses	1,997 17	695 40
June	8,442 38	6,701 93	General administration of joint tracks, yards and terminals, Dr.	24,90	Cr. 30
July	6,636 06	7,323 30	General administration of joint tracks, yards and terminals, Cr. ....	.....	Cr. 221 47
August	6,582 65	8,122 46			
September	7,035 79	7,332 06			
October	6,133 42	9,557 67			
	78,911 74	93,625 91		78,911 74	93,625 91

Comparative Statement of Earnings and Expenses

TEMISKAMING AND NORTHERN

No.	RECEIPTS.	Per Cent.	1910 November.	Per Cent.	1911 November.
			\$ c.		\$ c.
I.	Revenue from transportation :				
1	Freight revenue.....		62,959 66		94,835 09
2	Passenger revenue.....		40,170 08		56,654 41
3	Excess baggage revenue.....		542 00		674 94
4	Parlor and chair car revenue.....		99 65		86 35
5	Mail revenue.....		1,119 66		1,412 32
6	Express revenue.....		3,031 03		4,971 66
7	Milk revenue (on passenger trains).....				28 66
8	Other passenger train revenue.....				
9	Switching revenue.....				907 02
10	Special service train revenue.....				
11	Miscellaneous transportation revenue.....		5 00		
	Totals.....		107,927 08		159,570 45
II.	Revenue from operations other than transportation :—				
12	Station and train privileges.....		266 66		332 06
13	Parcel room receipts.....				
14	Storage—freight.....		101 44		43 16
15	Storage—baggage.....		79 90		109 20
16	Car service demurrage.....		364 25		1,400 00
17	Telegraph and telephone.....		2,731 18		3,146 85
18	Rents of buildings and other property.....		897 43		2,131 60
19	Miscellaneous.....		63 76		2,749 23
	Totals....		4,504 62		9,912 10
	Total revenue.....		112,431 70		169,482 55
	EXPENDITURES.				
i.	Maintenance of way and structures.....	17.7	19,951 46	13.5	22,821 12
ii.	Maintenance of equipment.....	10.3	11,662 49	13.4	22,673 40
iii.	Traffic expenses.....	.9	1,121 88	.7	1,151 49
iv.	Transportation expenses.....	34.5	39,043 54	35.	59,306 23
v.	General expenses.....	4.9	5,592 40	4.7	8,034 33
	Total operating expenses.....	68.3	77,371 77	67.3	113,986 57
	Balance.....		35,059 93		55,495 98
	Other Income :				
	Ore royalties.....				
	Hire of equipment.....				
	Totals.....		35,059 93		55,495 98
	Deductions from Income :				
	Hire of equipment.....		3,494 07		3,038 61
	Outside operations.....		920 00		304 71
	Net balance.....		30,645 86		52,152 66

by Months, November, 1910, to October, 1912.

ONTARIO RAILWAY.

Per Cent.	1910 December.	Per Cent.	1911 December.	Per Cent.	1911 January	Per Cent.	1912 January.	No.
	\$ c.		\$ c.		\$ c.		\$ c.	
.....	87,034 76	.....	110,105 28	.....	90,178 66	.....	87,500 99	1
.....	50,590 17	.....	58,764 61	.....	43,359 24	.....	40,204 37	2
.....	357 52	.....	435 73	.....	485 55	.....	504 58	3
.....	94 35	.....	85 95	.....	91 35	.....	106 50	4
.....	1,212 13	.....	1,464 12	.....	1,248 71	.....	1,710 07	5
.....	3,253 67	.....	4,716 20	.....	3,441 91	.....	4,513 41	6
.....	.....	.....	44 15	.....	.....	.....	79 80	7
.....	.....	.....	.....	.....	.....	.....	.....	8
.....	.....	.....	1,639 70	.....	60 41	.....	1,125 59	9
.....	.....	.....	.....	.....	.....	.....	.....	10
.....	404 84	.....	.....	.....	201 48	.....	.....	11
.....	142,947 44	.....	177,255 74	.....	139,067 31	.....	135,745 31	
.....	266 66	.....	245 82	.....	266 66	.....	280 26	12
.....	.....	.....	.....	.....	.....	.....	.....	13
.....	150 47	.....	58 48	.....	53 67	.....	44 63	14
.....	49 60	.....	73 55	.....	67 75	.....	80 40	15
.....	.....	.....	771 00	.....	81 75	.....	828 00	16
.....	3,159 78	.....	3,146 46	.....	3,025 17	.....	2,652 36	17
.....	975 83	.....	2,628 25	.....	1,321 16	.....	2,767 51	18
.....	4 50	.....	50 10	.....	9 52	.....	12 27	19
.....	4,606 84	.....	6,973 66	.....	4,825 68	.....	6,665 43	
.....	147,554 28	.....	184,229 40	.....	143,892 99	.....	142,410 74	
.....								
10.5	15,598 77	11.2	20,619 41	13.	18,841 90	16.5	23,537 65	i.
8.3	12,211 66	11.7	21,475 88	9.5	13,643 98	17.7	25,200 24	ii.
.9	1,456 85	.7	1,320 04	.9	1,207 19	.9	1,285 43	iii.
32.	47,278 14	36.5	67,326 02	39.5	56,912 37	45.2	64,432 47	iv.
5.2	7,696 67	3.8	7,044 64	3.8	5,413 93	6.3	8,939 17	v.
57.9	84,242 09	63.9	117,785 99	66.7	96,019 37	86.6	123,394 96	
.....	63,312 19	.....	66,443 41	.....	47,873 62	.....	19,015 78	
.....	.....	.....	41,371 36	.....	.....	.....	14,495 81	
.....	63,312 19	.....	107,814 77	.....	47,873 62	.....	33,511 59	
.....	2,066 10	.....	4,184 60	.....	2,548 16	.....	944 63	
.....	58 02	.....	34 38	.....	.....	.....	.....	
....	61,188 07	.....	103,595 79	.....	45,325 46	.....	32,566 96	

Comparative Statement of Earnings and Expenses by Months.

No.	RECEIPTS.	Per cent.	1911 February.	Per Cent.	1912. February.	Per Cent.	1911 March.
	I. Revenue from transportation:		\$ c.		\$ c.		\$ c.
1	Freight revenue.....		67,567 98		65,709 73		86,649 45
2	Passenger revenue.....		37,034 55		33,455 35		45,209 39
3	Excess baggage revenue.....		519 17		518 41		564 61
4	Parlor and chair car revenue.....		88 55		77 55		149 95
5	Mail revenue.....		1,231 65		1,583 40		1,408 10
6	Express revenue.....		3,037 79		3,055 43		3,038 57
7	Milk revenue (on passenger trains).....		144 75		74 63		41 15
8	Other passenger train revenue.....						
9	Switching revenue.....				638 88		238 81
10	Special service train revenue.....						25 00
11	Miscellaneous transportation revenue.....						
	Totals.....		109,624 44		105,113 38		137,325 03
	II. Revenue from operations other than transportation						
12	Station and train privileges.....		266 66		245 82		266 66
13	Parcel room receipts.....						
14	Storage—freight.....		59 05		121 43		124 51
15	Storage—baggage.....		59 75		97 95		64 80
16	Car service demurrage.....		651 65		356 00		501 99
17	Telegraph and telephone.....		2,816 69		2,342 19		4,005 66
18	Rents of buildings and other property.....		2,317 01		3,829 14		990 28
19	Miscellaneous.....		9 16		128 71		20 77
	Totals.....		6,179 97		7,121 24		5,974 67
	Total revenue.....		115,804 41		112,234 62		143,299 70
EXPENDITURES.							
i.	Maintenance of way and structures.....	15.7	18,202 43	18.7	20,909 69	9.7	13,950 32
ii.	Maintenance of equipment.....	11.9	13,863 32	17.3	19,396 38	11.1	16,036 33
iii.	Traffic expenses.....	1.	1,349 80	1.	1,573 32	1.1	1,442 71
iv.	Transportation expenses.....	40.3	46,646 48	50.6	56,609 09	32.9	47,149 82
v.	General expenses.....	5.5	6,313 31	7.	7,789 43	5.1	7,290 24
	Total operating expenses.....	74.4	86,375 24	94.6	106,277 91	59.9	85,869 42
	Balance.....		29,429 17		5,956 71		57,430 28
	Other income						
	Ore royalties.....		7,863 98				4,527 03
	Hire of equipment.....						
	Totals.....		37,293 15		5,956 71		61,957 31
	Deductions from income:						
	Hire of equipment.....		1,775 94		1,281 37		1,590 11
	Outside operations.....		631 52		310 00		330 64
	Net balance.....		34,885 69		4,365 34		60,036 56

November, 1910, to October, 1912.

Per Cent.	1912 March.	Per Cent.	1911 April.	Per Cent.	1912 April.	Per Cent.	1911 May.	No.
	\$ c.		\$ c.		\$ c.		\$ c	
.....	90,127 94	.....	55,874 48	.....	75,713 77	.....	53,684 69	1
.....	47,011 67	.....	51,067 69	.....	55,439 58	.....	53,658 13	2
.....	528 70	.....	525 92	.....	678 71	.....	573 37	3
.....	105 95	.....	126 80	.....	132 75	.....	156 20	4
.....	1,799 09	.....	1,292 68	.....	1,717 87	.....	1,408 10	5
.....	3,028 44	.....	3,447 62	.....	3,510 77	.....	3 189 15	6
.....	86 65	.....	52 41	.....	84 15	.....	46 88	7
.....	612 23	.....	279 00	.....	828 72	.....	338 87	8
.....		.....		.....	180 00	.....	25 00	9
.....		.....	255 46	.....		.....	135 38	10
.....	143,300 67	.....	112,922 06	.....	138,286 32	.....	112,615 77	11
.....	495 82	.....	266 66	.....	383 43	.....	266 66	12
.....	99 70	.....	68 19	.....	46 66	.....	63 82	13
.....	77 85	.....	67 50	.....	106 35	.....	81 00	14
.....	443 00	.....	262 75	.....	1,422 00	.....	365 70	15
.....	2,653 53	.....	2,713 47	.....	1,583 04	.....	3,644 64	16
.....	2,770 81	.....	1,717 37	.....	697 66	.....	605 06	17
.....	17 66	.....	165 31	.....		.....	1,715 24	18
.....	6,558 37	.....	5,261 25	.....	4,239 14	.....	6,742 12	19
.....	149,859 04	.....	118,183 31	.....	142,525 46	.....	119,357 89	
14.3	21,398 65	15.5	18,422 02	16.	22,788 35	27.4	32,714 93	i.
15.5	23,246 52	12.1	14,401 85	16.9	24,183 12	11.1	13,258 27	ii.
1.1	1,705 91	1.1	1,282 89	.9	1,355 18	1.2	1,448 11	iii.
41.8	62,683 28	32.9	38,792 45	36.1	51,472 42	33.5	40,063 70	iv.
4.6	6,918 76	4.9	5,764 92	5.6	7,938 55	5.1	6,009 97	v.
77.3	115,953 12	66.5	78,664 13	75.5	107,737 62	78.3	93,494 98	
.....	33,905 92	.....	39,519 18	.....	34,787 84	.....	25,862 91	
.....		.....		.....	16,129 24	.....		
.....	2,157 91	.....	1,281 60	.....	368 80	.....	1,869 40	
.....	36,063 83	.....	40,800 78	.....	51,285 88	.....	27,732 31	
.....	920 00	.....	333 13	.....	416 50	.....	300 00	
.....	35,143 83	.....	40,467 65	.....	50,869 38	.....	27,432 31	

Comparative Statement of Earnings and Expenses by

No.	RECEIPTS	Per Cent.	1912 May.	Per Cent.	1911 June.	Per Cent.	1912 June.
			\$ e.		\$ c		\$ e.
	I. Revenue from transportation:						
1	Freight revenue		77,146 54		58,101 19		57,728 30
2	Passenger revenue		57,996 89		52,844 42		50,493 82
3	Excess baggage revenue		738 20		683 11		576 16
4	Parlor and chair car revenue		152 00		159 95		135 40
5	Mail revenue		1,813 63		1,355 96		1,665 80
6	Express revenue		3,980 64		4,083 34		4,061 11
7	Milk revenue (on passenger trains)		73 26		44 00		50 02
8	Other passenger train revenue						
9	Switching revenue		771 92		335 30		427 34
10	Special service train revenue				1,067 00		1,425 20
11	Miscellaneous Transportation Revenue				133 40		
	Totals		142,673 08		118,807 67		116,563 15
	II. Revenue from operations other than transportation:						
12	Station and train privileges		329 16		280 97		367 31
13	Parcel room receipts						
14	Storage—freight		109 43		59 96		86 59
15	Storage—baggage		124 25		109 70		114 70
16	Car service demurrage		1,183 50		387 40		662 00
17	Telegraph and Telephone		2,849 97		3,014 39		2,486 42
18	Rents of buildings and other property		9,553 90		1,162 86		681 66
19	Miscellaneous		288 79		34 84		22 96
	Totals		14,439 00		5,050 12		4,421 64
	Total Revenue		157,112 08		123,857 79		120,984 79
	EXPENDITURES.						
i.	Maintenance of way and structures	24.1	37,943 57	39.7	49,132 39	27.5	33,313 04
ii.	Maintenance of equipment	14.3	22,511 91	10.	12,480 33	15.5	18,814 51
iii.	Traffic expenses	.8	1,205 55	2.2	2,708 66	.9	1,118 81
iv.	Transportation expenses	34.3	54,005 66	31.5	39,083 80	42.	50,848 91
v.	General expenses	5.1	7,923 61	6.9	8,442 38	5.5	6,701 93
	Total operating expenses	78.5	123,590 30	90.3	111,847 56	91.4	110,797 20
	Balance		33,521 78		12,010 23		10,187 59
	Other income:						
	Ore royalties						26,437 70
	Hire of equipment				3,132 93		4,132 02
	Totals		33,521 78		15,143 16		40,757 31
	Deductions from income:						
	Hire of equipment		2,031 32				
	Outside operations		300 00		310 00		620 60
	Net balance		31,190 46		14,833 16		40,137 31

Months, November, 1910, to October, 1912---Continued.

Per Cent.	1911 July.	Per Cent.	1912 July.	Per Cent.	1911 August.	Per Cent	1912 August.	No.
	\$ c.		\$ c		\$ c.		\$ c.	
.....	68,694 55	.....	62,251 60	.....	97,121 77	.....	66,561 98	1
.....	71,671 64	.....	53,193 98	.....	73,901 14	.....	53,811 01	2
.....	508 01	.....	518 68	.....	606 21	.....	517 76	3
.....	133 50	.....	175 85	.....	180 30	.....	183 00	4
.....	1,412 56	.....	1,799 07	.....	1,466 67	.....	1,799 07	5
.....	3,834 20	.....	3,971 91	.....	6,769 78	.....	3,648 15	6
.....	31 80	.....	9 71	.....	37 98	.....	17 82	7
.....	489 08	.....	502 52	.....	959 06	.....	790 55	8
.....	18 30	.....		.....	50 00	.....	69 20	9
.....		.....		.....		.....		10
.....		.....		.....		.....		11
.....	146,793 64	.....	122,423 32	.....	181,092 91	.....	127,398 54	
.....	266 66	.....	329 16	.....	245 82	.....	329 16	12
.....	63 19	.....	61 80	.....	97 13	.....	44 54	13
.....	76 80	.....	88 35	.....	118 73	.....	71 60	14
.....	511 25	.....	518 00	.....	1,091 00	.....	912 50	15
.....	4,610 27	.....	2,625 04	.....	6,548 08	.....	2,636 01	16
.....	1,219 12	.....	2,399 00	.....	1,135 66	.....	644 08	17
.....	76 38	.....		.....		.....	100 94	18
.....	6,823 67	.....	6,021 35	.....	9,236 42	.....	4,738 83	19
.....	153,617 31	.....	128,444 67	.....	190,329 33	.....	132,137 37	
.....								
.....								
33.9	52,165 66	24.6	31,631 48	25.3	48,047 31	28.3	37,333 97	i.
7.7	11,710 75	14.4	18,489 97	6.9	13,202 91	13.7	18,144 85	ii.
1.1	1,678 69	1.4	1,765 83	.6	1,278 66	1.3	1,791 12	iii.
29.7	45,641 24	39.2	50,462 29	28.1	53,473 93	40.7	53,884 72	iv.
4.3	6,636 06	5.8	7,323 30	3.5	6,582 65	6.2	8,122 46	v.
76.7	117,832 40	85.4	109,672 87	64.4	122,585 46	90.2	119,277 12	
.....	35,784 91	.....	18,771 80	.....	67,743 87	.....	12,860 25	
.....		.....		.....	3,779 68	.....		
.....		.....	992 42	.....		.....	1,459 57	
.....	35,784 91	.....	19,764 22	.....	71,523 55	.....	14,319 82	
.....	592 17	.....		.....	4,223 74	.....		
.....	300 00	.....		.....		.....	310 85	
.....	34,892 74	.....	19,764 22	.....	67,299 81	.....	14,008 97	

Comparative Statement of Earnings and Expenses by

No.	RECEIPTS.	Per cent	1911 September.	Per cent.	1912 September.	Per cent.	1911 October.	Per cent
			\$ c.		\$ c.		\$ c.	
	I. Revenue from transportation:							
1	Freight revenue.....		116,622 76	.....	69,458 48	.....	130,788 38	.....
2	Passenger revenue.....		68,241 70	.....	45,087 32	.....	65,314 86	.....
3	Excess baggage revenue.....		659 82	.....	561 11	.....	733 15	.....
4	Parlor and chair car revenue..		159 10	.....	172 55	.....	138 60	.....
5	Mail revenue.....		1,412 05	.....	1,665 80	.....	1,412 32	.....
6	Express revenue.....		5,343 62	.....	3,826 76	.....	5,086 76	.....
7	Milk revenue (on passenger trains).....		28 95	.....	31 92	.....	21 56	.....
8	Other passenger train revenue..		.....	.....	.....	.....	.....	.....
9	Switching revenue.....		1,255 34	.....	424 79	.....	1,400 70	.....
10	Special service train revenue..		506 00	.....	181 25	.....	.....	.....
11	Miscellaneous transportation revenue.....		.....	.....	.....	.....	.....	.....
	Totals.....		194,229 34	.....	121,409 98	.....	204,896 33	.....
	II. Revenue from operations other than transportation:							
12	Station and train privileges ..		245 82	.....	329 16	.....	526 12	.....
13	Parcel room receipts.....		.....	.....	.....	.....	.....	.....
14	Storage—freight.....		42 58	.....	40 26	.....	103 77	.....
15	Storage—baggage.....		99 95	.....	64 45	.....	110 85	.....
16	Car service demurrage.....		1,127 97	.....	1,222 20	.....	1,916 65	.....
17	Telegraph and telephone.....		3,525 39	.....	2,383 77	.....	3,387 47	.....
18	Rents of buildings and other property.....		1,014 79	.....	3,857 51	.....	1,337 36	.....
19	Miscellaneous.....		31 45	.....	.....	.....	40 28	.....
	Totals.....		6,087 95	.....	7,897 35	.....	7,422 50	.....
	Total Revenue.....		200,317 29	.....	129,307 33	.....	212,318 83	.....
	EXPENDITURES.							
	i. Maintenance of way and struc- tures.....	19.2	38,462 26	28.8	37,237 61	13.4	28,429 47	26.9
	ii. Maintenance of equipment.....	7.2	14,306 08	13.	16,780 78	8.1	17,367 82	13.7
	iii. Traffic expenses.....	.7	1,527 88	1.6	2,086 54	.5	1,201 99	.8
	v. Transportation ex penses.....	28.8	57,780 55	40.1	51,880 06	26.1	55,450 95	38.9
	v. General expenses..	3.5	7,035 79	5.7	7,332 06	3.	6,133 42	6.8
	Total operating expenses.....	59.4	119,112 56	89.2	115,317 05	51.5	108,583 65	87.1
	Balance.....		81,204 73	.....	13,990 28	.....	103,725 18	.....
	Other income:							
	Ore royalties.....		.....		24,137 70	.....	889 87	.....
	Hire of equipment.....		.....		205 11	.....	.....	.....
	Totals.....		81,204 73	.....	38,333 09	.....	104,625 05	.....
	Deductions from income:							
	Hire of equipment.....		5,389 80	.....	.....	.....	3,684 60	.....
	Outside operations.....		.....	.....	.....	.....	610 00	.....
	Net balance.....		75,814 93	.....	38,333 09	.....	100,330 45	.....

Months, November, 1910, to October, 1912.---Continued.

1912 October.	Per cent	1911 Total.	Per cent	1912 Total.	Increase.	Decrease.	Net Increase.	Net decrease.	No.
\$ c		\$ c.		\$ c.	c.	\$ c.	\$ c.	\$ c.	
72,324 96		974,678 33	....	929,464 66	.....	45,213 67	.....	.....	1
47,568 72		653,063 01	....	599,681 73	.....	53,381 28	.....	.....	2
876 97		6,758 44	....	7,129 95	.....	371 51	.....	.....	3
179 50		1,578 30	....	1,593 35	.....	15 05	.....	.....	4
1,799 05		15,980 59	....	20,229 29	.....	4,248 70	.....	.....	5
3,725 83		47,557 44	....	47,010 31	.....	547 13	.....	.....	6
31 26		449 48	....	612 03	.....	162 55	.....	.....	7
.....									8
1,413 71		5,356 57	....	10,082 97	.....	4,726 40	.....	.....	9
875 50		1,691 30	....	2,731 15	.....	1,039 85	.....	.....	10
.....		1,135 56	.....	.....	.....	1,135 56	.....	.....	11
128,795 50		1,708,249 02	....	1,618,535 44	.....	10,564 06	.....	89,713 58	.....
329 16		3,432 01	....	3,996 32	.....	564 31	.....	.....	12
.....									13
75 05		987 78	....	831 72	.....	156 05	.....	.....	14
55 60		986 33	....	1,064 25	.....	77 9	.....	.....	15
1,179 95		7,262 36	....	10,898 15	.....	3,635 79	.....	.....	16
2,773 92		43,182 19	....	31,279 56	.....	11,902 63	.....	.....	17
4,227 20		14,693 93	....	36,188 32	.....	21,494 39	.....	.....	18
1,285 64		2,171 21	....	4,656 30	.....	2,485 09	.....	.....	19
9,926 52		72,715 81	....	88,914 63	.....	28,257 50	.....	16,198 82	.....
138,722 02		1,780,964 83	....	1,707,450 07	.....	.....	.....	73,514 76	.....
.....									
.....									
37,429 47	19.9	353,918 92	20.3	346,964 01	.....	6,954 91	.....	.....	i.
18,765 66	9.2	164,145 69	14.6	249,683 22	.....	85,537 53	.....	.....	ii.
1,102 00	1.	17,705 31	1.1	17,461 22	.....	244 09	.....	.....	iii.
54,052 18	31.9	567,316 97	39.6	676,963 33	.....	109,646 36	.....	.....	iv.
9,537 67	4.4	78,911 74	5.5	93,625 91	.....	14,714 17	.....	.....	v.
120,906 98	66.4	1,181,998 63	81.1	1,384,697 69	.....	209,898 06	.....	202,699 06	.....
17,815 04		598,566 20	....	322,752 38	.....	.....	.....	276,213 82	.....
12,928 50		17,060 56	...	135,500 31	.....	118,439 75	.....	.....	.....
1,509 54		6,283,93	....	10,825 37	.....	4,541 44	.....	.....	.....
32,253 08		622,310 69	....	469,078 06	.....	.....	.....	153,232 63	.....
.....		25,364 69	....	11,480 5	.....	13,884 16	.....	.....	.....
179 35		3,793 31	....	3,395 79	.....	397 52	.....	.....	.....
32,073 73		593,152 69	....	454,201 7	.....	.....	.....	138,950 95	.....

Comparative Statement of Expenses by Months, November,

No.	Maintenance of Way and Structures.	1910 November.	1911 November	1910 December	1911 December.
		\$ c.	\$ c.	\$ c.	\$ c.
1	Superintendence	1,291 02	1,683 91	1,180 65	1,545 33
2	Ballast	29 70	43 98	39 57	9 50
3	Ties	439 66	482 64	Cr. 945 22	.....
4	Rails	3,396 19	140 45	1,307 33	119 52
5	Other Track Material	620 34	586 38	1,119 88	852 92
6	Roadway and Track	8,402 72	11,125 59	4,683 67	10,585 23
7	Removal of Snow, Sand and Ice	1,555 19	3,011 77	3,843 08	3,408 74
8	Tunnels .....	.....	.....	.....	.....
9	Bridges, Trestles and Culverts	676 56	899 13	1,184 94	972 64
10	Over and Under Grade Crossings .....	.....	.....	.....	.....
11	Grade Crossings, Fences, Cattle Guards and Signs	99 77	395 70	49 39	134 95
12	Snow and Sand Fences and Snow sheds .....	.....	.....	.....	.....
13	Signals and Interlocking Plants	28	2 67	06	20 90
14	Telegraph and Telephone Lines	114 53	430 58	308 28	540 52
15	Electric Power Transmission	214 20	.....	.....	.....
16	Buildings, Fixtures and Grounds	2,736 14	3,629 92	2,444 15	2,813 60
17	Docks and Wharves .....	.....	.....	.....	.....
18	Roadway Tools and Supplies	347 38	378 97	348 09	434 64
19	Injuries to Persons .....	.....	.....	.....	Cr. 455 34
20	Stationery and Printing	27 78	9 43	34 90	23 29
21	Other Expenses .....	.....	.....	.....	.....
22	Maintaining Joint Tracks, Yards and other facilities—Dr .....	.....	.....	.....	.....
23	Maintaining Joint Tracks, Yards and other facilities—Cr .....	.....	.....	.....	Cr. 387 03
	Totals	19,951 46	22,821 12	15,598 77	20,619 41
	Maintenance of Equipment.				
24	Superintendence	733 83	1,220 63	765 10	1,043 19
25	Steam Locomotives—Repairs	5,310 49	9,116 40	6,675 62	8,382 92
26	" " Renewals .....	.....	.....	.....	.....
27	" " Depreciation .....	.....	1,105 58	.....	1,105 58
28	Electric Locomotives—Repairs .....	.....	.....	.....	.....
29	" " Renewals .....	.....	.....	.....	.....
30	" " Depreciation .....	.....	.....	.....	.....
31	Passenger Train Cars—Repairs	2,485 87	4,422 59	2,250 09	3,801 08
32	" " Renewals .....	.....	.....	.....	.....
33	" " Depreciation .....	.....	739 69	.....	739 69
34	Freight Train Cars—Repairs	1,742 29	3,195 66	1,572 76	4,280 63
35	" " Renewals .....	.....	.....	Cr. 461 43	.....
36	" " Depreciation .....	.....	1,044 80	.....	1,044 80
37	Electric Equipment of Cars—Repairs .....	.....	.....	.....	.....
38	" " Renewals .....	.....	.....	.....	.....
39	" " Depreciation .....	.....	.....	.....	.....
40	Floating Equipment—Repairs .....	.....	.....	.....	.....
41	" " Renewals .....	.....	.....	.....	.....
42	" " Depreciation .....	.....	.....	.....	.....
43	Work Equipment—Repairs	937 68	981 47	837 54	320 88
44	" " Renewals .....	.....	.....	.....	.....
45	" " Depreciation .....	.....	248 96	.....	248 96
46	Shop Machinery and Tools	414 23	397 54	547 28	533 92
47	Power Plant Equipment .....	.....	.....	.....	.....
48	Injuries to Persons .....	.....	.....	.....	.....
49	Stationery and Printing	30 50	12 87	30 60	58 95
50	Other Expenses	7 60	187 21	Cr. 5 90	Cr. 84 72
51	Maintaining Joint Equipment at Ter- minals—Dr .....	.....	.....	.....	.....
52	Maintaining Joint Equipment at Ter- minals—Cr .....	.....	.....	.....	.....
	Totals	11,662 49	22,673 40	12,211 66	21,475 88

1910, to October, 1912,---Continued.

1911 January.	1912 January.	1911 February.	1912 February.	1911 March.	1912 March.	No.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
1,036 09	2,153 77	917 86	1,729 78	1,110 90	1,918 86	1
72 81	100 01	126 61	124 94	158 77	298 48	2
Cr. 345 05	1,621 19	.....	.....	.....	.....	3
136 96	54 59	118 66	122 06	221 09	790 98	4
1,411 18	14 53	477 04	677 66	1,014 23	1,889 00	5
5,002 76	7,876 33	5,393 61	8,658 41	6,596 79	11,165 45	6
7,071 09	7,358 45	6,283 56	6,745 15	2,199 86	2,357 66	7
.....	.....	.....	.....	.....	.....	8
1,849 90	851 03	2,014 26	611 73	764 51	969 39	9
.....	.....	.....	.....	.....	.....	10
24 20	734 40	1 63	Cr. 5 54	Cr. 12 97	7 31	11
58 63	.....	19 79	.....	.....	.....	12
.....	8 10	.....	.....	90	2 91	13
123 23	585 48	410 24	509 88	487 23	515 40	14
234 15	.....	.....	.....	.....	.....	15
2,079 97	1,996 88	2,374 16	1,451 78	1,470 33	1,341 87	16
.....	.....	.....	.....	.....	.....	17
47 55	541 92	11 72	411 31	Cr. 101 77	510 84	18
.....	Cr. 25 00	.....	600 00	.....	4 00	19
38 43	82 02	53 29	37 60	40 45	51 90	20
.....	.....	.....	.....	.....	.....	21
.....	.....	.....	.....	.....	.....	22
.....	Cr. 416 05	.....	Cr. 745 07	.....	Cr. 425 31	23
18,841 90	23,537 65	18,202 43	20,909 69	13,950 32	21,398 65	
.....						
.....						
684 90	1,300 66	947 44	1,254 96	761 20	1,192 61	24
7,183 74	9,769 30	5,774 54	5,377 46	7,589 51	12,417 25	25
.....	1,105 58	.....	1,105 58	.....	1,105 58	26
.....	.....	.....	.....	.....	.....	27
.....	.....	.....	.....	.....	.....	28
.....	.....	.....	.....	.....	.....	29
2,506 25	3,793 28	3,212 64	3,872 87	3,030 45	693 39	30
.....	.....	.....	.....	.....	.....	31
.....	739 69	.....	739 69	.....	739 69	32
2,131 18	4,844 19	1,668 75	3,892 72	2,611 81	5,168 65	33
.....	.....	.....	.....	.....	.....	34
.....	1,044 80	.....	1,044 80	.....	1,044 80	35
.....	.....	.....	.....	.....	.....	36
.....	.....	.....	.....	.....	.....	37
.....	.....	.....	.....	.....	.....	38
.....	.....	.....	.....	.....	.....	39
.....	.....	.....	.....	.....	.....	40
.....	.....	.....	.....	.....	.....	41
742 79	1,812 39	1,756 48	1,403 11	1,746 36	Cr. 130 75	42
.....	.....	.....	.....	.....	.....	43
.....	248 96	.....	248 96	.....	248 96	44
382 30	366 72	437 24	304 29	283 22	581 05	45
.....	.....	.....	.....	.....	.....	46
.....	.....	.....	1 81	.....	1 02	47
54 22	114 71	50 28	92 83	74 88	119 96	48
Cr. 41 40	59 96	15 85	57 20	Cr. 61 10	64 31	49
.....	.....	.....	.....	.....	.....	50
.....	.....	.....	.....	.....	.....	51
.....	.....	.....	.....	.....	.....	52
13,643 98	25,200 24	13,863 22	19,396 38	16,036 33	23,246 52	

Comparative Statement of Expenses by Months,

No.	Maintenance of Way and Structures.	1911 April.	1912 April.	1911 May.	1912 May.
		\$ c.	\$ c.	\$ c.	\$ c.
1	Superintendence.....	1,358 98	1,868 88	1,603 30	2,143 48
2	Ballast	386 96	562 90	2,351 28	104 25
3	Ties	1,632 60	2,356 54	3,616 36	2,250 94
4	Rails	312 64	554 32	2 849 46	283 79
5	Other Track Material.....	482 16	132 37	153 80	522 58
6	Roadway and Track	9,413 92	13,931 61	14,559 92	19,988 03
7	Removal of Snow, Sand and Ice	83 16	254 39	17 22	103 26
8	Tunnels				
9	Bridges, Trestles and Culverts	1,567 71	116 97	876 82	7,541 52
10	Over and Under Grade Crossings		18 80		1 52
11	Grade Crossings, Fences, Cattle Guards and Signs	75 90	216 54	1,070 36	652 72
12	Snow and Sand Fences and Snowsheds				
13	Signals and Interlocking Plants.....	1 52			3 03
14	Telegraph and Telephones Lines.....	524 92	438 50	363 13	370 80
15	Electric Power Transmission				
16	Buildings, Fixtures and Grounds	1,961 13	1,687 01	4,087 25	4,155 52
17	Docks and Wharves				
18	Roadway Tools and Supplies.....	574 09	1,476 79	950 02	917 98
19	Injuries to Persons.....			12 50	2 00
20	Stationery and Printing	46 33	28 78	203 51	100 90
21	Other Expenses				
22	Maintaining Joint Tracks, Yards and other facilities—Dr.....				
23	Maintaining Joint Tracks, Yards and other facilities—Cr.....		Cr. 856 65		Cr. 1,198 75
	Totals.....	18,422 02	22,788 35	32,714 93	37,943 57
	Maintenance of Equipment.				
24	Superintendence	762 11	873 79	794 24	1,125 90
25	Steam Locomotives—Repairs.....	6,188 97	8,468 55	5,113 26	7,803 76
26	“ “ Renewals				
27	“ “ Depreciation		1,105 58		1,105 58
28	Electric Locomotives—Repairs.....				
29	“ “ Renewals				
30	“ “ Depreciation.....				
31	Passenger Train Cars—Repairs.....	2,700 25	3,275 10	3,228 90	3,796 59
32	“ “ Renewals				
33	“ “ Depreciation.....		739 69		2,872 98
34	Freight Train Cars—Repairs.....	1,535 72	4,207 84	1,326 02	1,170 37
35	“ “ Renewals	60 00			
36	“ “ Depreciation.....		1,044 80		1,044 80
37	Electric Equipment of Cars—Repairs				
38	“ “ Renewals				
39	“ “ Depreciation				
40	Floating Equipment—Repairs.....				
41	“ “ Renewals				
42	“ “ Depreciation				
43	Work Equipment—Repairs.....	2,914 14	3,808 03	2,339 06	2,635 20
44	“ “ Renewals				
45	“ “ Depreciation		248 96		248 96
46	Shop Machinery and Tools.....	369 09	313 64	433 37	382 17
47	Power Plant Equipment				
48	Injuries to Persons.....			12 50	
49	Stationery and Printing	98 82	54 34	83 33	162 21
50	Other Expenses	Cr. 227 25	42 80	Cr. 72 41	163 39
51	Maintaining Joint Equipment at Ter- minals—Dr.....				
52	Maintaining Joint Equipment at Ter- minals—Cr.....				
	Totals.....	14,401 85	24,183 12	13,258 27	22,511 91

November, 1910, to October, 1912.

1911 June.	1912 June.	1911 July.	1912 July.	1911 August.	1912 August.	No.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
1,972 06	2,006 25	1,682 31	2,288 98	2,057 83	1,941 02	1
6,479 52	7 88	5,141 18	3 23	5,141 40	2,103 20	2
6,321 25	2,138 02	10,101 38	2,768 19	5,841 02	7,537 27	3
3,874 92	Cr. 49 13	25 62	1,876 61	874 00	390 64	4
83 90	258 87	332 41	689 08	Cr. 157 14	495 12	5
20,770 68	20,940 43	24,726 77	17,922 11	26,838 05	18,046 75	6
		84 25				7
						8
3,062 86	1,734 51	2,810 91	1,126 23	1,799 03	1,793 01	9
8 35						10
869 46	868 79	1,774 65	615 89	663 53	751 21	11
						12
			21 00	1 23		13
405 18	948 40	542 83	1,258 97	590 42	1,158 62	14
						15
4,535 34	3,660 81	4,358 39	2,578 95	4,000 44	3,066 21	16
						17
740 59	579 99	410 52	959 97	365 89	587 95	18
	455 34	98 00			75 00	19
8 28	34 47	26 44	160 37	31 61	47 43	20
		50 00				21
					Cr. 660 41	22
	Cr. 271 59		Cr. 638 10		Dr. 95	23
49,132 39	33,313 04	52,165 66	31,631 48	48,047 31	37,333 97	
926 61	844 68	898 71	1,160 01	1,002 21	764 80	24
5,459 41	7,763 35	5,641 93	7,530 05	6,132 75	6,761 27	25
						26
	1,105 58		1,105 58		1,105 58	27
						28
						29
						30
2,171 64	3,526 61	2,157 63	3,761 58	2,639 50	3,576 77	31
						32
	739 69		739 69		739 69	33
1,290 07	2,474 90	1,502 08	3,926 72	1,645 75	2,431 83	34
	Cr. 519 02					35
	1,044 80		1,044 80		1,044 80	36
						37
						38
						39
						40
						41
						42
1,690 63	1,006 95	988 23	Cr. 1,522 69	1,072 21	455 93	43
						44
	248 96		248 96		248 96	35
772 69	272 39	412 44	322 87	598 28	464 71	36
						37
	12 18	2 63	08		76 08	48
50 39	83 11	49 81	43 30	77 11	71 45	49
118 89	210 33	57 29	129 02	35 10	402 98	50
						51
						52
12,480 33	18,814 51	11,710 75	18,489 97	13,202 91	18,144 85	

Comparative Statement of Expenses by Months.

No.	Maintenance of Way and Structures.	1911 September.	1912 September.	1911 October.	1912 October.
		\$ c.	\$ c.	\$ c.	\$ c.
1	Superintendence	1,784 60	1,754 41	1,770 65	2,351 73
2	Ballast	4,061 09	3,280 79	1,212 30	4,329 70
3	Ties	3,493 85	7,532 96	2,499 92	6,919 89
4	Rails	260 08	104 33	52 77	1,549 20
5	Other Track Material	377 30	Cr. 491 45	147 70	224 77
6	Roadway and Track	22,204 89	17,672 61	15,991 88	21,849 62
7	Removal of Snow, Sand and Ice		47 16		14 16
8	Tunnels				
9	Bridges, Trestles and Culverts	1,285 80	2,241 92	796 77	Cr. 5,093 84
10	Over and Under Grade Crossings				
11	Grade Crossings, Fences, Cattle Guards and Signs	712 32	£90 79	947 88	25 45
12	Snow and Sand Fences and Snowsheds				
13	Signals and Interlocking Plants			14 15	8 31
14	Telegraph and Telephone Lines	494 63	769 60	846 89	2,178 97
15	Electric Power Transmission				
16	Buildings, Fixtures and Grounds	3,541 03	4,080 60	3,722 44	3,498 50
17	Docks and Wharves				
18	Roadway, Tools and Supplies	224 82	379 64	426 12	223 46
19	Injuries to Persons				
20	Stationery and Printing	21 85	16 82		17 45
21	Other Expenses				
22	Maintaining Joint Tracks, Yards and other Facilities—Dr.				
23	Maintaining Joint Tracks, Yards and other Facilities—Cr.		Cr. 542 57		Cr. 667 90
	Totals	38,462 26	37,237 61	28,429 47	37,429 47
	Maintenance of Equipment.				
24	Superintendence	924 45	786 93	1,137 97	790 52
25	Steam Locomotive—Repairs	6,833 67	7,026 59	7,666 38	8,189 98
26	“ “ Renewals				
27	“ “ Depreciation		1,105 58		1,105 58
28	Electric Locomotive—Repairs				
29	“ “ Renewals				
30	“ “ Depreciation				
31	Passenger Train Cars—Repairs	3,025 72	1,728 34	3,696 16	5,063 16
32	“ “ Renewals				
33	“ “ Depreciation		739 69		739 69
34	Freight Train Cars—Repairs	2,099 19	4,048 61	2,646 43	149 34
35	“ “ Renewals		Cr. 1,293 48		
36	“ “ Depreciation		1,044 80		1,044 80
37	Electric Equipment of Cars—Repairs			8 70	
38	“ “ Renewals				
39	“ “ Depreciation				
40	Floating Equipment—Repairs				
41	“ “ Renewals				
42	“ “ Depreciation				
43	Work Equipment—Repairs	882 61	858 87	1,456 29	828 56
44	“ “ Renewals		Cr. 54 78		
45	“ “ Depreciation		248 96		248 96
46	Shop Machinery and Tools	496 84	413 53	658 85	409 90
47	Power Plant Equipment				
48	Injuries to Persons				5 00
49	Stationery and Printing	36 80	98 23	84 62	68 02
50	Other Expenses	6 80	28 91	12 42	122 15
51	Maintaining Joint Equipment at Ter- minals—Dr.				
52	Maintaining Joint Equipment at Ter- minals—Cr.				
	Totals	14,306 08	16,730 78	17,367 82	18,765 66

November, 1910, to October, 1912.

1911 Total.	1912 Total.	Increase.	Decrease.	Net Increase.	Net Decrease.	No.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
17,766 25	23,386 40	5,620 15	.....	.....	.....	1
25,201 19	10,968 86	.....	14,232 33	.....	.....	2
32,655 77	33,607 64	951 87	.....	.....	.....	3
13,429 72	5,937 36	.....	7,492 36	.....	.....	4
6,062 80	5,851 83	.....	210 97	.....	.....	5
164,585 66	179,742 17	15,156 51	.....	.....	.....	6
21,137 41	23,300 74	2,163 33	.....	.....	.....	7
.....	.....	.....	.....	.....	.....	8
18,690 07	13,764 15	.....	4,925 92	.....	.....	9
8 35	20 32	11 97	.....	.....	.....	10
6,276 12	4,788 21	.....	1,487 91	.....	.....	11
78 42	.....	.....	78 42	.....	.....	12
18 14	66 92	48 78	.....	.....	.....	13
5,211 51	9,705 72	4,494 21	.....	.....	.....	14
448 35	.....	.....	448 35	.....	.....	15
37,310 77	33,961 65	.....	3,349 12	.....	.....	16
.....	.....	.....	.....	.....	.....	17
4,345 02	7,403 46	3,058 44	.....	.....	.....	18
110 50	656 00	545 50	.....	.....	.....	19
532 87	610 46	77 59	.....	.....	.....	20
50 00	.....	.....	50 00	.....	.....	21
.....	Cr. 660 41	.....	660 41	.....	.....	22
.....	Cr. 6,147 47	.....	6,147 47	.....	.....	23
353,918 92	346,964 01	32,128 35	39,083 26	.....	6,954 91	
.....						
10,338 77	12,358 68	2,019 91	.....	.....	.....	24
75,570 27	98,606 88	23,036 61	.....	.....	.....	25
.....	13,266 96	13,266 96	.....	.....	.....	26
.....	.....	.....	.....	.....	.....	27
.....	.....	.....	.....	.....	.....	28
.....	.....	.....	.....	.....	.....	29
33,105 10	41,311 36	8,206 26	.....	.....	.....	30
.....	11,009 57	11,009 57	.....	.....	.....	31
21,772 05	39,791 46	18,019 41	.....	.....	.....	32
Cr. 401 43	Cr. 1,812 50	.....	1,411 07	.....	.....	33
.....	12,537 60	12,537 60	.....	.....	.....	34
8 70	.....	.....	8 70	.....	.....	35
.....	.....	.....	.....	.....	.....	36
.....	.....	.....	.....	.....	.....	37
.....	.....	.....	.....	.....	.....	38
.....	.....	.....	.....	.....	.....	39
.....	.....	.....	.....	.....	.....	40
.....	.....	.....	.....	.....	.....	41
17,364 02	12,457 95	.....	4,906 07	.....	.....	42
.....	Cr. 54 78	.....	54 78	.....	.....	43
.....	2,987 52	2,987 52	.....	.....	.....	44
5,805 83	4,762 73	.....	1,043 10	.....	.....	45
.....	.....	.....	.....	.....	.....	46
15 13	96 17	81 04	.....	.....	.....	47
721 36	979 98	258 62	.....	.....	.....	48
Cr. 154 11	1,383 64	1,537 75	.....	.....	.....	49
.....	.....	.....	.....	.....	.....	50
.....	.....	.....	.....	.....	.....	51
.....	.....	.....	.....	.....	.....	52
164,145 69	249,683 22	92,961 25	7,423 72	85,537 53	.....	

Comparative Statement of Expenses by Months, November, 1910,

No.	Traffic Expenses.	1910 November.	1911 November.	1910 December.	1911 December.
		\$ c.	\$ c.	\$ e.	\$ c.
53	Superintendence	709 49	792 34	739 57	786 93
54	Outside Agencies	12 99	.....	3 32	13 52
55	Advertising.....	153 00	113 25	404 74	306 00
56	Traffic Associations.....	.....	.....	.....	.....
57	Fast Freight Lines .....	.....	.....	.....	.....
58	Industrial and Immigration Bureaus.....	98 00	119 42	106 12	122 26
59	Stationery and Printing.....	148 40	126 48	203 10	91 33
60	Other Expenses.....	.....	.....	.....	.....
	Totals.....	1,121 88	1,151 49	1,456 85	1,320 04
	Transportation Expenses.				
61	Superintendence	850 37	797 90	855 00	836 47
62	Despatching Trains	733 33	995 07	719 85	879 77
63	Station Employees	5,910 26	8,839 30	6,606 16	10,945 11
64	Weighing and Car Service Associations	15 97	27 11	16 28	20 93
65	Coal and Ore Docks.....	.....	.....	.....	.....
66	Station Supplies and Expenses	1,087 23	1,775 57	1,341 67	1,382 23
67	Yardmasters and their Clerks	200 00	146 02	200 00	947 18
68	Yard Conductors and Brakemen	1,235 15	2,178 55	1,346 38	3,412 91
69	Yard Switch and Signal Tenders	16 17	29 21	68 47	76 02
70	Yard Supplies and Expenses	13 49	9 22	Cr. 57 88	79 38
71	Yard Enginemen	634 35	1,265 84	823 04	1,826 50
72	Engine-house Expenses—Yard	273 04	375 66	339 91	568 54
73	Fuel for Yard Locomotives	1,143 60	1,878 81	1,799 38	3,107 20
74	Water for Yard Locomotives	78 71	26 04	113 80	4 15
75	Lubricants for Yard Locomotives	29 91	25 29	Cr. 46 30	52 74
76	Other Supplies for Yard Locomotives	14 79	16 69	Cr. 2 29	22 91
77	Operating Joint Yards and Terminals	.....	.....	.....	.....
	—Dr.	1,988 90	2,779 13	2,425 77	1,506 27
78	Operating Joint Yards and Terminals	.....	.....	.....	.....
	—Cr. ....	.....	.....	.....	Cr.3,986 46
79	Motormen .....	.....	.....	.....	.....
80	Road Enginemen.....	3,734 96	5,552 44	4,718 31	6,617 07
81	Engine-house Expenses—Road	1,142 35	1,625 96	1,341 44	2,450 27
82	Fuel for Road Locomotives	11,981 07	18,891 47	15,678 97	22,741 33
83	Water for Road Locomotives	692 56	1,134 23	790 33	1,468 50
84	Lubricants for Road Locomotives.....	211 62	299 17	243 60	402 31
85	Other Supplies for Road Locomotives	94 42	18 24	Cr. 10 85	116 47
86	Operating Power Plants.....	.....	.....	.....	.....
87	Purchased Power .....	.....	.....	.....	.....
88	Road Trainmen	4,721 56	6,451 57	5,809 67	7,817 67
89	Train Supplies and Expenses.....	1,238 79	2,520 18	1,150 44	1,852 07
90	Interlockers, Block and other Signals— Operations .....	.....	.....	.....	.....
91	Crossing, Flagmen and Gatemen .....	.....	.....	.....	.....
92	Drawbridge Operation .....	.....	.....	.....	.....
93	Clearing Wrecks	Cr. 19 15	108 48	155 31	130 63
94	Telegraph and Telephone—Operation.	10 55	49 08	7 81	19 75
95	Operating Floating Equipment .....	.....	.....	.....	.....
96	Express Service .....	.....	.....	.....	.....
97	Stationery and Printing	440 40	1,253 29	855 16	1,118 62
98	Other Expenses	500 00	Cr. 143 65	.....	151 60
99	Loss and Damage—Freight	18 73	315 36	Cr. 66 29	712 88
100	Loss and Damage—Baggage	41	.....	.....	25 00
101	Damage to Property	50 00	.....	.....	.....
102	Damage to Stock on Right-of-Way.....	.....	.....	55 00	20 00
103	Injuries to Persons .....	.....	65 00	.....	.....
104	Operating Joint Tracks—Dr. ....	.....	.....	.....	.....
105	Operating Joint Tracks—Cr. ....	.....	.....	.....	.....
	Totals	39,043 54	59,306 23	47,278 14	67,326 02

to October, 1912--Continued.

1911 January.	1912 January.	1911 February.	1912 February.	1911 March.	1912 March.	No.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
798 22	821 49	732 83	793 82	752 57	784 96	53
10 85	6 70	4 25	15 03	2 98	410 82	54
90 79	83 50	273 50	440 00	333 00	238 24	55
5 00						56
104 22	172 32	101 32	117 67	103 75	136 27	57
198 11	201 42	237 90	206 80	250 41	135 62	58
						59
						60
1,207 19	1,285 43	1,349 80	1,573 32	1,442 71	1,705 91	
1,003 80	866 96	890 47	825 00	919 36	900 28	61
712 25	1,018 93	706 58	974 76	717 62	1,084 63	62
6,398 55	10,099 50	6,530 01	9,596 45	6,410 58	9,208 03	63
40 43	40 22	21 86	19 29	21 06		64
	Cr. 857 50			15 00		65
1,233 85	1,774 58	1,145 58	1,774 26	991 64	1,159 12	66
200 00	1,117 24	202 50	1,210 85	211 53	1,163 77	67
1,450 65	3,342 61	1,306 34	3,083 08	1,398 92	3,397 34	68
46 20	161 81	74 41	214 41	58 42	263 15	69
39 60	110 52	36 84	120 93	24 64	88 04	70
917 01	1,907 13	842 97	1,807 27	853 93	1,877 58	71
339 59	879 88	345 59	807 72	402 70	839 67	72
1,978 34	3,496 17	1,867 62	3,981 36	1,807 70	3,692 65	73
166 44	18 63	111 70	74 01	72 13	137 77	74
39 26	72 22	23 18	66 58	49 06	75 45	75
15 20	37 09	11 67	33 21	12 36	31 78	76
2,419 20	1,097 49	2,268 75	2,130 42	2,926 26	1,489 63	77
	Cr. 4,325 67		Cr. 9,736 89		Cr. 6,788 12	78
						79
5,441 87	6,169 55	4,518 83	5,404 26	5,154 59	6,587 12	80
1,582 49	3,295 84	1,474 89	2,805 86	1,681 81	3,745 04	81
22,887 10	20,628 14	14,681 66	17,394 30	13,990 09	18,636 39	82
1,150 84	1,661 08	845 30	1,892 52	707 89	1,790 11	83
101 64	402 55	44 81	338 25	69 58	396 38	84
127 47	147 62	106 33	138 12	124 21	124 10	85
						86
						87
6,241 58	6,922 23	5,225 58	6,064 15	5,819 90	7,240 94	88
1,590 15	2,018 08	1,887 88	2,465 09	1,533 28	2,542 37	89
						90
						91
						92
11 43	489 90	188 21	47 85	88 35	224 52	93
31 93	20 99	17 54	117 59	4 71	98 78	94
						95
						96
590 07	1,683 72	867 40	1,174 65	792 22	1,252 96	97
	90 82	11 20		7 04	45 58	98
110 43	10 64	389 96	233 74	174 24	114 97	99
40 00	20 00	82			Cr. 60 00	100
						101
5 00	12 50		50 00	105 00		102
	1 00		1,500 00	4 00	1,323 25	103
						104
						105
56,912 37	64,432 47	46,646 48	56,609 09	47,149 82	62,683 28	

Comparative Statement of Expenses by Months, November,

No.	Traffic Expenses.	1911 April.	1912 April.	1911 May.	1912 May.
		\$ c.	\$ c.	\$ c.	\$ c.
53	Superintendence	740 92	785 27	731 02	829 10
54	Outside Agencies.....	3 84			
55	Advertising.....	261 37	252 50	503 63	115 00
56	Traffic Associations				
57	Fast Freight Lines.....				
58	Industrial and Immigration Bureaus.	135 84	213 82	110 28	116 95
59	Stationery and Printing.	140 92	103 59	103 18	144 50
60	Other Expenses.....				
	Totals	1,282 89	1,355 18	1,448 11	1,205 55
	Transportation Expenses.				
61	Superintendence	1,030 21	964 18	918 35	843 02
62	Despatching Trains	713 46	1,050 86	964 51	980 34
63	Station Employees	6,108 46	9,062 17	6,058 45	9,175 91
64	Weighing and Car Service Associations	19 98	19 44	16 95	17 56
65	Coal and Ore Docks.....				
66	Station Supplies and Expenses.....	849 38	1,112 58	521 48	1,492 34
67	Yardmasters and their Clerks.....	206 50	1,118 73	207 82	
68	Yard Conductors and Brakemen.....	1,158 56	3,361 85	1,221 74	3,000 16
69	Yard Switch and Signal Tenders.....	84 99	227 24	75 36	232 75
70	Yard Supplies and Expenses	30 72	58 19	12 33	45 49
71	Yard Enginemen.....	806 11	1,745 94	771 10	1,738 73
72	Engine-house Expenses—Yard.....	366 31	650 99	361 45	666 47
73	Fuel for Yard Locomotives	1,568 22	3,078 76	1,540 15	3,433 46
74	Water for Yard Locomotives.....	54 48	119 06	207 19	79 21
75	Lubricants for Yard Locomotives	41 76	60 71	38 07	54 27
76	Other Supplies for Yard Locomotives.	22 39	25 12	17 55	20 39
77	Operating Joint Yards and Terminals				
	—Dr	2,241 56	1,444 78	2,332 06	1,499 72
78	Operating Joint Yards and Terminals				
	—Cr		Cr.6,765 54		Cr.6,256 21
79	Motormen				
80	Road Enginemen.....	3,911 56	4,714 12	3,864 46	5,570 50
81	Engine-house Expenses—Road.....	1,486 95	3,101 88	1,442 89	2,986 15
82	Fuel for Road Locomotives.....	10,103 59	15,015 00	10,549 88	15,703 48
83	Water for Road Locomotives.....	678 68	1,632 57	1,117 84	1,592 63
84	Lubricants for Road Locomotives.....	14 37	225 02	219 76	275 69
85	Other Supplies for Road Locomotives.	101 99	82 51	104 70	94 62
86	Operating Power Plants.....				
87	Purchased Power				
88	Road Trainmen.....	4,499 16	5,769 95	4,278 94	6,317 99
89	Train Supplies and Expenses.....	1,073 30	2,183 28	1,524 75	2,190 66
90	Interlockers, Block and other Signals—				
	Operations.....				
91	Crossing, Flagmen and Gatemen.....				
92	Drawbridge Operation.....				
93	Clearing Wrecks.....	7 92	Cr. 1 40	427 86	643 95
94	Telegraph and Telephone—Operation..	23 56	164 71	163 83	383 29
95	Operating Floating Equipment.....				
96	Express Service				
97	Stationery and Printing.....	1,331 77	753 70	862 50	835 01
98	Other Expenses.....			13 50	
99	Loss and Damage—Freight.....	133 41	401 02	126 75	331 95
100	Loss and Damage—Baggage	83 10	35 00	41 48	Cr. 10 00
101	Damage to Property				4 00
102	Damage to Stock on Right-of-Way.....			35 00	54 48
103	Injuries to Persons.....		60 00	25 00	7 65
104	Operating Joint Tracks—Dr.....	40 00			
105	Operating Joint Tracks—Cr.....				
	Totals.....	38,792 45	51,472 42	40,063 70	54,005 66

1910, to October, 1912.--Continued.

1911 June.	1912 June.	1911 July.	1912 July.	1911 August.	1912 August.	No.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
736 58	788 92	815 99	845 74	659 00	805 27	53
3 04	25 98	33 17	.....	6 30	13 12	54
1,761 97	60 00	601 31	627 50	443 84	670 54	55
15 00	.....	.....	15 00	.....	.....	56
.....	.....	.....	.....	.....	.....	57
113 44	161 94	141 55	140 97	95 88	143 04	58
78 63	81 97	86 67	136 62	73 64	159 15	59
.....	.....	.....	.....	.....	.....	60
2,708 66	1,118 81	1,678 69	1,765 83	1,278 66	1,791 12	
.....						
.....						
858 68	825 24	870 03	918 75	607 40	916 93	61
934 80	924 56	1,065 88	1,077 98	1,021 36	1,006 98	62
6,053 19	9,292 98	6,812 33	9,139 69	7,894 74	9,349 73	63
12 97	.....	17 48	41 55	15 58	18 75	64
.....	.....	.....	.....	.....	28 48	65
360 38	797 09	501 18	2,061 19	1,514 32	561 86	66
192 00	858 82	202 50	1,030 87	207 50	946 59	67
1,209 78	2,753 74	1,330 20	3,104 69	1,880 46	2,976 43	68
77 00	127 68	65 50	154 48	29 45	161 31	69
15 25	42 73	18 95	75 10	12 72	70 22	70
780 25	1,484 28	807 73	1,733 72	1,219 93	1,792 05	71
375 96	491 49	364 52	484 45	342 82	337 82	72
1,384 32	2,988 78	1,353 60	2,793 87	1,449 12	2,960 78	73
44 13	96 82	115 01	89 65	9 01	60 56	74
42 19	53 70	35 70	71 40	49 13	59 34	75
13 29	23 61	15 96	3 25	21 76	19 08	76
2,014 29	1,458 28	2,581 27	1,509 65	3,111 43	861 75	77
.....	Cr. 5,446 02	.....	Cr. 7,532 96	.....	Cr. 6,212 93	78
.....	.....	.....	.....	.....	.....	79
4,048 19	5,021 28	5,331 15	5,219 60	6,409 01	5,661 79	80
1,567 02	2,876 55	1,546 06	2,614 92	1,493 25	2,507 67	81
10,212 13	13,216 11	11,946 08	14,554 75	15,964 32	15,628 59	82
769 29	1,583 60	931 65	1,090 33	755 27	1,461 98	83
219 40	274 42	322 39	342 23	278 37	366 63	84
103 34	97 62	121 01	93 20	81 72	98 66	85
.....	.....	.....	.....	.....	.....	86
.....	.....	.....	.....	.....	.....	87
4,538 97	5,696 64	6,238 31	6,041 42	6,733 55	6,845 65	88
1,722 60	2,622 01	1,581 46	2,801 53	1,634 06	2,333 70	89
.....	.....	.....	.....	.....	.....	90
.....	.....	.....	.....	.....	.....	91
.....	.....	.....	.....	.....	.....	92
996 59	1,429 45	1,332 36	175 88	450 91	1,129 23	93
2 74	311 37	10 94	286 42	7 87	330 60	94
.....	.....	.....	.....	.....	.....	95
.....	.....	.....	.....	.....	.....	96
676 90	916 63	1,353 89	732 45	1,114 65	680 17	97
.....	10 00	.....	32 83	.....	.....	98
73 45	Cr. 55 55	Cr. 14 74	Cr. 317 78	475 22	530 32	99
Cr. 215 30	30 60	.....	.....	.....	7 50	100
.....	.....	.....	.....	.....	.....	101
.....	45 00	32 84	19 18	125 00	77 50	102
.....	.....	Cr. 1,250 00	18 00	Cr. 1,436 00	309 00	103
.....	.....	.....	.....	.....	.....	104
.....	.....	.....	.....	.....	.....	105
39,083 80	50,848 91	45,641 24	50,462 29	53,473 93	53,884 72	

Comparative Statement of Expenses by Months, November, 1910,

No.	Traffic Expenses.	1911 September.	1912 September.	1911 October.	1912 October.
		\$ c.	\$ c.	\$ c.	\$ c.
53	Superintendence	796 14	749 98	853 65	795 80
54	Outside Agencies		1 86	4 71	31
55	Advertising	502 04	611 21	37 70	107 50
56	Traffic Associations			83 79	
57	Fast Freight Lines				
58	Industrial and Emigration Bureaus ..	90 77	408 53	97 00	119 06
59	Stationery and Printing	138 93	314 96	125 14	79 33
60	Other Expenses				
	Totals	1,527 88	2,086 54	1,201 99	1,102 00
	Transportation Expenses.				
61	Superintendence	606 38	737 21	715 81	896 92
62	Despatching Trains	972 44	1,059 51	759 40	1,072 43
63	Station Employees	8,254 70	9,433 69	8,397 96	9,677 85
64	Weighing and Car Service Associations	17 22	21 69	27 42	51 32
65	Coal and Ore Docks				
66	Station Supplies and Expenses	1,692 92	783 67	1,862 83	1,213 74
67	Yardmasters and their Clerks	236 66	978 32	201 50	905 29
68	Yard Conductors and Brakemen	2,011 98	2,542 07	2,036 89	2,610 74
69	Yard Switch and Signal Tenders	54 15	172 65	78 85	156 56
70	Yard Supplies and Expenses	13 65	29 45	35 02	69 45
71	Yard Enginemen	1,067 58	1,473 56	1,212 98	1,470 88
72	Engine-house Expenses—Yard	277 48	510 79	271 74	533 90
73	Fuel for Yard Locomotives	1,566 41	2,581 87	1,611 26	2,747 81
74	Water for Yard Locomotives	Cr. 10 06	120 48	Cr. 41 99	47 08
75	Lubricants for Yard Locomotives	45 08	60 94	28 76	65 10
76	Other Supplies for Yard Locomotives.	28 00	19 49	19 31	18 19
77	Operating Joint Yards and Terminals —Dr.	3,118 40	Cr. 63 79	3,111 69	806 24
78	Operating Joint Yards and Terminals —Cr.		Cr. 5,719 78		Cr. 5,784 15
79	Motormen				
80	Road Enginemen	6,637 84	5,621 83	6,326 65	5,664 13
81	Engine-house Expenses—Road	1,776 87	2,488 75	1,793 41	2,554 10
82	Fuel for Road Locomotives	17,247 06	15,158 37	16,540 07	16,674 54
83	Water for Road Locomotives	1,390 19	1,520 37	1,009 97	1,056 21
84	Lubricants for Road Locomotives	271 51	305 84	318 27	301 80
85	Other Supplies for Road Locomotives.	141 02	89 96	115 54	94 96
86	Operating Power Plants				
87	Purchased Power				
88	Road Trainmen	7,374 30	6,512 68	7,131 28	6,461 23
89	Train Supplies and Expenses	1,735 09	2,893 09	1,213 39	2,320 08
90	Interlockers, Block and other Signals— Operations				
91	Crossing, Flagmen and Gatemen				
92	Drawbridge Operation				
93	Clearing Wrecks	106 59	373 50	153 52	255 57
94	Telegraph and Telephone—Operation.	37 85	325 94	123 22	210 75
95	Operating Floating Equipment				
96	Express Service				
97	Stationery and Printing	961 15	1,020 13	404 97	590 93
98	Other Expenses	13 37		77 50	178 15
99	Loss and Damage—Freight	32 34	227 10	10 12	123 45
100	Loss and Damage—Baggage	27 38	Cr. 25 00	3 61	
101	Damage to Property				
102	Damage to Stock on Right-of-Way	25 00	17 43		646 63
103	Injuries to Persons	50 00	608 25	Cr. 100 00	360 30
104	Operating Joint Tracks—Dr.				
105	Operating Joint Tracks—Cr.				
	Totals	57,780 55	51,880 06	55,450 95	54,052 18

to October, 1912---Continued.

1911 Total.		1912 Total.		Increase.	Decrease.	Net Increase.	Net Decrease.	No.
\$	c.	\$	c.	\$	c.	\$	c.	
9,065	98	9,579	62	313	64			53
85	45	487	34	401	89			54
5,366	89	3,625	24			1,741	65	55
103	79	15	00			88	79	56
								57
1,298	17	1,972	25	674	08			58
1,785	03	1,781	77			3	26	59
								60
17,705	31	17,461	22	1,389	61	1,833	70	
							444	09
10,125	86	10,328	86	203	00			61
10,021	48	12,125	82	2,104	34			62
81,435	39	113,820	41	32,385	02			63
243	20	277	86	34	66			64
15	00	Cr. 829	02			844	02	65
13,102	46	15,888	23	2,785	77			66
2,468	51	10,423	68	7,955	17			67
17,587	05	55,764	17	18,177	12			68
728	97	1,977	27	1,248	30			59
195	33	798	72	603	39			70
10,736	98	20,123	48	9,386	50			71
4,061	11	7,147	38	3,086	27			72
19,069	72	36,741	52	17,671	80			73
920	55	873	46			47	09	74
375	80	717	74	341	94			75
189	99	270	81	80	82			76
30,539	58	16,519	57			14,020	01	77
		Cr. 68,554	73			68,554	73	78
60,097	42	67,803	69	7,706	27			79
18,329	43	33,052	99	14,723	56			80
171,782	02	204,242	47	32,460	45			81
10,839	81	17,884	13	7,044	32			82
2,315	32	3,930	29	1,614	97			83
1,210	90	1,196	08			14	82	84
								85
								86
								87
68,612	80	78,142	12	9,529	32			88
17,885	19	28,742	14	10,856	95			89
								90
								91
								92
3,899	90	5,007	56	1,107	66			93
442	55	2,319	27	1,876	72			94
								95
								96
10,251	08	12,012	26	1,761	18			97
622	61	365	33			257	28	98
1,463	62	2,628	10	1,164	48			99
Cr. 18	50	22	50	41	00			100
50	00	4	00			46	00	101
382	84	942	72	559	88			102
Cr. 2,707	00	4,252	45	6,959	45			103
40	00					40	00	104
								105
567,316	97	676,963	33	193,470	31	83,823	95	
						109,646	36	

Comparative Statement of Expenses by Months, November, 1910,

No.	General Expenses.	1910 November.	1911 November.	1910 December.	1911 December.
106	Salaries and Expenses of General Officers	\$ c. 1,033 04	\$ c. 2,108 52	\$ c. 2,215 49	\$ c. 1,078 19
107	Salaries and Expenses of Clerks and Attendants	1,850 12	2,728 57	1,912 59	2,587 06
108	General Office Supplies and Expenses..	387 23	622 30	417 47	374 43
109	Law Expenses	400 00	586 75	637 24	617 08
110	Insurance	1,833 36	1,833 36	2,312 13	2,053 52
111	Relief Department Expenses.....				
112	Pensions				
113	Stationery and Printing	83 45	141 19	153 42	301 24
114	Other Expenses	5 20	13 64	48 33	33 12
115	General Administration Joint Tracks, Yards and Terminals—Dr.....				
116	General Administration Joint Tracks, Yards and Terminals—Cr				
	Totals	5,592 40	8,034 33	7,696 67	7,044 64

Comparative Statement of Expenses by Months, November, 1910

General Expenses.	1911 April.	1912 April.	1911 May.	1912 May.
106 Salaries and Expenses of General Officers	\$ c. 978 59	\$ c. 1,156 91	\$ c. 1,176 37	\$ c. 2,276 97
107 Salaries and Expenses of Clerks and Attendants	1,997 37	3,446 49	2,027 60	2,605 08
108 General Office Supplies and Expenses..	300 65	357 78	290 89	291 29
109 Law Expenses	400 00	600 00	400 00	400 00
110 Insurance	1,833 36	1,997 05	1,920 86	2,001 25
111 Relief Department Expenses				
112 Pensions				
113 Stationery and Printing.....	78 50	162 04	118 19	319 12
114 Other Expenses.....	176 45	218 28	51 16	29 90
115 General Administration Joint Tracks, Yards and Terminals—Dr.....			24 90	
116 General Administration Joint Tracks, Yards and Terminals—Cr				
Totals.....	5,764 92	7,938 55	6,009 97	7,923 61

Comparative Statement of Expenses by Months, November, 1910,

General Expenses.	1911 September.	1912 September.	1911 October.	1912 October.
106 Salaries and Expenses of General Officers	\$ c. 2,064 21	\$ c. 1,123 32	\$ c. 909 86	\$ c. 1,133 86
107 Salaries and Expenses of Clerks and Attendants	2,287 75	2,835 29	2,454 53	2,565 63
108 General Office Supplies and Expenses..	275 32	322 66	343 24	595 11
109 Law Expenses	499 48	516 47	400 00	2,950 45
110 Insurance	1,833 36	2,357 67	1,833 36	1,961 02
111 Relief Department Expenses.....				
112 Pensions				
113 Stationery and Printing.....	65 59	194 59	46 68	375 47
114 Other Expenses	10 08	3 75	145 75	
115 General Administration Joint Tracks, Yards and Terminals—Dr.....				
116 General Administration Joint Tracks, Yards and Terminals—Cr.....		Cr. 21 69		Cr. 21 87
Totals	7,035 79	7,332 06	6,133 42	9,557 67

to October, 1912---Continued.

1911 January.	1912 January,	1911 February.	1912 February.	1911 March.	1912 March.	No.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
1,029 39	1,031 65	1,012 96	2,197 05	2,163 83	1,199 81	106
2,150 76	2,588 32	2,074 73	2,970 57	2,082 74	2,513 32	107
318 30	525 85	495 47	277 50	577 93	374 61	108
Cr. 5 00	2,692 44	800 00	400 00	525 67	401 50	109
1,833 36	1,833 36	1,833 36	1,899 87	1,837 56	1,843 11	110
.....	.....	.....	.....	.....	.....	111
80 19	21 90	75 29	19 44	102 51	572 65	112
6 93	245 65	21 50	25 00	.....	13 76	113
.....	.....	.....	.....	.....	.....	114
.....	.....	.....	.....	.....	.....	115
.....	.....	.....	.....	.....	.....	116
5,413 93	8,939 17	6,313 31	7,789 43	7,290 24	6,918 76	

to October, 1912---Continued.

1911 June.	1912 June.	1911 July.	1912 July.	1911 August.	1912 August.	No.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
2,164 55	1,056 28	1,320 00	1,139 91	1,005 43	2,193 19	106
2,062 44	2,689 28	1,968 75	2,679 47	2,203 86	2,640 77	107
265 50	481 68	417 71	357 16	519 31	598 66	108
491 79	400 52	535 00	400 00	900 00	480 72	109
1,858 36	1,997 05	1,939 74	1,997 05	1,810 54	2,033 08	110
.....	.....	.....	.....	.....	.....	111
497 27	149 50	59 78	721 98	109 29	197 30	112
1,102 47	62 00	395 08	50 00	34 22	30	113
.....	.....	.....	Cr. 30	.....	.....	114
.....	Cr. 134 38	.....	Cr. 21 97	.....	Cr. 21 56	115
8,442 38	6,701 93	6,636 06	7,323 30	6,582 65	8,122 46	116

to October, 1912---Concluded.

1911 Total.	1912 Total.	Increase.	Decrease.	Net Increase.	Net Decrease.	No.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
17,073 72	17,695 66	621 94	.....	.....	.....	106
25,073 24	32,849 85	7,776 61	.....	.....	.....	107
4,609 02	5,179 03	570 01	.....	.....	.....	108
5,984 18	10,445 93	4,461 75	.....	.....	.....	109
22,679 55	23,807 39	1,128 04	.....	.....	.....	110
.....	.....	.....	.....	.....	.....	111
1,470 16	3,174 42	1,704 26	.....	.....	.....	112
1,997 17	695 40	.....	1,301 77	.....	.....	113
24 90	Cr. 30	.....	25 20	.....	.....	114
.....	Cr. 221 47	.....	221 47	.....	.....	115
78,911 74	93,625 91	16,262 61	1,548 44	14,714 17	.....	116

Statement—Classified Tonnage—November 1st, 1911, to October 31st, 1912.

Commodities.	Freight originating on this road.	Freight received from foreign roads.	Total Tonnage.	
	Whole Tons.	Whole Tons.	Whole Tons.	Per Cwt.
Products of Agriculture—				
1 Grain	750	6,268	7,018	1.247
2 Flour	1,330	5,231	6,561	1.166
3 Other mill products.....	277	1,298	1,575	.279
4 Hay.....	6,618	1,917	8,535	1.517
5 Tobacco				
7 Fruit and Vegetables.....	1,201	5,178	6,379	1.134
8 Other products of Agriculture.....	30		30	.005
Products of Animals—				
9 Live Stock	1,521	2,605	4,126	.733
10 Dressed Meats.....	47	1,679	1,726	.307
11 Other packing house products.....	16	93	109	.019
12 Poultry, Game and Fish.....		98	98	.017
13 Wool.....				
14 Hides and Leather	12		12	.002
15 Other products of Animals.....	92	121	213	.038
Products of Mines—				
16 Anthracite Coal.....	8,813	23,972	32,785	5.825
17 Bituminous Coal.....	22,433	76,928	99,361	17.657
18 Coke	99	583	682	.121
19 Ores	40,631		40,631	7.221
20 Stone, Sand and other like articles..	7,512	290	7,802	1.387
21 Other Products of Mines.....	430	922	1,352	.240
Products of Forests—				
22 Lumber	143,635	7,444	151,079	26.847
23 Other Products of Forests.....	49,599	165	49,764	8.844
Manufactures—				
24 Petroleum and other Oils.....	371	2,491	2,862	.510
25 Sugar	31	339	370	.065
27 Iron, Pig and Bloom.....	71	115	186	.033
28 Iron and Steel Rails.....	3,231	28,440	31,671	5.629
29 Other Castings and Machinery.....	2,322	7,793	10,115	1.798
30 Bar and Sheet Metal		965	965	.171
31 Cement, Brick and Lime.....	3,105	14,876	17,981	3.195
32 Agricultural Implements.....	25	81	106	.019
33 Wagons, Carriages, Tools, etc.....	139	262	401	.071
34 Wines, Liquors and Beers.....	806	3,060	3,866	.687
35 Household Goods and Furniture.....	791	1,958	2,749	.488
36 Other Manufactures.....	1,948	5,252	7,200	1.279
37 Merchandize	25,068	32,742	57,810	10.274
Miscellaneous—				
38 Other Commodities not mentioned above	3,654	2,960	6,614	1.175
Totals	326,608	236,126	562,734	100.000

Statement—Tons One Mile—November 1st, 1911, to October 31st, 1912.

Month.	Total Tons.	Tons. North Bound.	Tons, South Bound.	Tons, One Mile.
November 1911.....	43,985	29,580	14,405	5,569,011
December ".....	54,492	36,729	17,763	7,324,242
January 1912.....	43,854	28,538	15,316	6,275,608
February ".....	40,209	20,151	20,058	4,954,625
March ".....	51,067	28,700	22,367	6,871,736
April ".....	46,041	25,343	20,698	5,769,080
May ".....	46,780	22,657	24,123	5,544,123
June ".....	45,716	17,721	27,995	4,721,341
July ".....	44,911	17,466	27,445	4,703,248
August ".....	51,070	27,091	23,979	6,329,558
September ".....	47,685	26,388	21,297	5,655,060
October ".....	46,924	28,413	18,511	5,752,282
Totals.....	562,734	308,777	253,957	69,469,914

Average Wages November 1st, 1911, to October 31st, 1912.

Class.	No.	Total days worked.	Total com- pensation.	Average daily compensation.
			\$ c.	\$ c.
General Officers.....	8	3,233	19,020 00	5 88
Other Officers.....	20	7,776	29,385 71	3 79
General Office Clerks.....	83	27,419	50,371 70	1 84
Station Agents.....	36	10,460	31,190 74	2 98
Other Station Men.....	155	43,749	77,078 48	1 76
Engineers.....	38	15,409	62,164 80	4 03
Firemen.....	42	15,405	39,128 40	2 54
Conductors.....	40	14,516	50,426 17	3 47
Other Trainmen.....	90	32,203	80,007 70	2 49
Machinists.....	31	7,926	26,752 27	3 38
Carpenters.....	82	17,920	49,910 12	2 79
Other Shopmen.....	185	56,030	118,485 69	2 11
Track Foremen.....	82	22,259	62,993 14	2 83
Other Trackmen.....	622	145,052	274,937 15	1 90
Switch Tenders, etc.....	1	330	910 48	2 76
Operators and Dispatchers.....	37	10,573	29,499 42	1 97
All Others.....	152	28,093	57,861 25	2 06
Construction Employees on New Line.	....	....	30,187 43	....
Total (including General Officers)	1704	458,353	1,090,310 65	2 38
Less General Officers.....	8	3,233	19,020 00	5 88
Total (excluding General Officers)	1696	455,120	1,071,290 65	2 35
Maintenance of Way and Structures..	529	127,105	268,941 15	2 11
Maintenance of Equipment.....	258	62,226	153,469 44	2 47
Traffic Expenses.....	16	4,718	9,296 04	1 97
Transportation Expenses.....	552	155,121	405,710 90	2 62
General Expenses.....	66	20,729	53,587 05	2 58
Additions and Betterments.....	89	31,204	70,249 39	2 22
Construction.....	194	57,250	129,056 68	2 25
Total (including General Officers)	1704	458,353	1,090,310 65	2 38
Less General Officers.....	8	3,233	19,020 00	5 88
Total (excluding General Officers)	1696	455,120	1,071,290 65	2 35

**Equipment owned by Temiskaming and Northern Ontario Railway
October 31st, 1912.**

	Total authorized equipment.	Available for service.	Destroyed or transferred to other classes.	Capacity. Tractive Power. Pounds.	Valuation.	Total valu- ation carried in general ledger.
STEAM LOCOMOTIVES.					\$ c.	\$ c.
Class A 3	4	4	.....	56,320	.....	.....
Class B 4	4	4	.....	170,000	.....	.....
Class C 2	2	2	.....	26,488	.....	.....
Class C 3	30	30	.....	704,220	.....	.....
Class F 3	4	4	.....	121,600	.....	.....
Totals	44	44	.....	1,078,628	.....	749,775 72
PASSENGER EQUIPMENT.						
Passenger, 1st Class.....	14	14	.....	} .....	278,676 80	.....
Passenger, 2nd Class.....	21	19	2		.....	.....
Parlor-Cafe	3	3	.....	.....	62,502 05	.....
Baggage and Express.....	7	6	1	}	67,070 27	.....
Mail and Express.....	6	5	1		.....	.....
Private	3	3	.....	.....	39,591 11	.....
Totals	54	50	4	.....	.....	447,840 23
FREIGHT EQUIPMENT.						
Box.....	150	147	3	.....	179,908 40	.....
Stock	10	10	.....	.....	8,989 20	.....
Vans	20	19	1	.....	32,899 59	.....
Flats	500	469	31	.....	405,197 33	.....
Totals.....	680	645	35	.....	.....	626,994 52
MAINTENANCE OF WAY AND STRUCTURES EQUIPMENT.						
Pile Driver.....	1	1	.....	.....	11,772 35	.....
Snow Plows.....	4	3	1	.....	19,310 20	.....
Flangers	3	3	.....	.....	4,505 21	.....
Steam Shovels.....	2	2	.....	.....	17,249 63	.....
Wrecking Cranes	2	2	.....	.....	29,678 00	.....
Auxiliaries Complete.....	2	2	.....	.....	4,565 67	.....
Ledgerwood Ballast Unloaders.....	4	4	.....	.....	.....	.....
Side Ballast Plows.....	6	6	.....	} .....	26,650 49	.....
Jordan Ballast Spreader ..	1	1	.....		.....	.....
Mahoney Ditching Machine.....	1	1	.....	.....	.....	.....
Centre Ballast Plows	3	3	.....	.....	.....	.....
American Railroad Ditcher ..	1	1	.....	.....	8,777 73	.....
Centre Ballast Spreader.....	1	1	.....	.....	1,000 85	.....
Cinder Cars, Steel.....	12	12	.....	.....	18,485 32	.....
Hand Cars	120	105	15	}	7,379 11	.....
Push Cars	74	74	.....		.....	.....
Motor Cars.....	2	2	.....	.....	.....	.....
Velocipedes.....	20	20	.....	.....	.....	.....
Steam Shovel.....	1	1	.....	.....	.....	.....
Hart Convertible Cars.....	17	17	.....	.....	17,500 00	.....
Totals	277	261	16	.....	.....	166,874 56
Total Valuation of Equipment						\$1,991,485 03

Traffic and Mileage Statistics

Passenger Traffic.

1	Total passengers carried earning revenue	497,452
2	Number of passengers carried one mile	23,381,681
3	Number of passengers carried one mile, as per mile of road	78,992
4	Average distance carried, miles	47
5	Total passenger revenue	\$599,681.73
6	Average amount received from each passenger	\$1.21
7	Average receipts per passenger per mile (cents)	2.56
8	Total passenger train service revenue	\$676,256.66
9	Passenger service train revenue per mile of road	\$2,252.38
10	Passenger service train revenue per train mile	\$1.42

Freight Traffic.

11	Number of tons carried of freight earning revenue	562,734
12	Number of tons carried one mile	69,469,914
13	Number of tons carried one mile, as per mile of road	234,695
14	Average distance haul of one ton, miles	123.45
15	Total freight revenue	\$929,464.66
16	Average amount received for each ton of freight	\$1.65
17	Average amount received per ton per mile (cents)	1.33
18	Freight revenue per mile of road	\$3,095.75
19	Freight revenue per train mile	\$2.10

Total Traffic.

20	Operating revenue	\$1,707,450.07
21	Operating revenue per mile of road	\$5,686.95
22	Operating revenue per train mile	\$1.94
23	Operating expenses	\$1,384,697.69
24	Operating expenses per mile of road	\$4,611.97
25	Operating expenses per train mile	\$1.57
26	Net operating revenue	\$322,752.38
27	Net operating revenue per mile of road	\$1,074.98

Car Mileage.

28	Average number of passengers per car mile	110
29	Average number of passengers per train mile	48
30	Average number of passenger cars per train mile	4.96
31	Mileage of passenger cars	2,415,412
32	Mileage of loaded freight cars, north and east	2,821,137
33	Mileage of loaded freight cars, south and west	1,166,742
34	Mileage of empty freight cars, north and east	206,303
35	Mileage of empty freight cars, south and west	1,929,294
36	Average number of freight cars per train mile	14.50
37	Average number of loaded cars per train mile	8.97
38	Average number of empty cars per train mile	4.80
39	Average number of tons of freight per train mile	156.30
40	Average number of tons of freight per loaded car mile	17.42
41	Average mileage operated during year	296.31

Train Mileage.

42	Mileage of revenue passenger trains	439,265
43	Mileage of revenue mixed trains	47,530
44	Mileage of revenue freight trains	396,926
46	Total revenue train mileage	883,721

Statement Showing Amounts Paid the Province of Ontario
ACCOUNT—FIRE RANGING

Paid by Voucher No.	Date Paid.	For Season.	Amount Paid.
			\$ c.
C1800.....	May 15th, 1905.....	1904	2,422 01
1012.....	May 21st, 1906.....	1905	9,154 34
1942.....	September 13th, 1906.....	1905	132 37
2894.....	January 16th, 1907.....	1905	95 00
C4378.....	April 15th, 1907.....	1906	6,703 05
C5595.....	March 28th, 1908.....	1907	11,173 94
15979.....	January 24th, 1909.....	1908	16,963 86
19014.....	March 19th, 1910.....	1909	5,000 00
20004.....	April 21st, 1910.....	1909	5,000 00
28863.....	August 3rd, 1911.....	1909	10,000 00
28861.....	August 3rd, 1911.....	1910	5,000 00
29116.....	November 1st, 1911.....	1910	5,000 00
34437.....	{ June , 1912.....	1911	5,000 00
	Balance, 1911 Account.....		4,990 25
Total account, Fire Ranging.....			\$86,634 82

STATEMENT OF LAND PURCHASED BY T. & N. O. RAILWAY

November 1st, 1911, to October 31st, 1912.

Right of Way, Porcupine Branch:

Chisholm Corporation, Limited, Porcupine, Ont.	
Part of 11, Con. 5, Township Clergue, 3.92 acres.....	\$39 20
Minnesota Porcupine Mining Company, Porcupine, Ont.	
Part Lot 6, Con. 2, Township Dundonald, 8.05 acres	80 50
Colorado Porcupine Co., Limited, Porcupine, Ont.	
Part Lot 7, Con. 4, Township Whitney, 7.57 acres	75 70
J. G. Pendrith, Toronto, Ont.	
N. ½, Lot 9, Con. 6, Township German, includes damages for timber taken from lot	300 00
G. J. Hoyle, Cannington, Ont.	
S. ½, Lot 1, Con. 1, Township Hoyle, 6.38 acres	349 00
Henry Digby, Dunnville, Ont.	
S. ½, Lot 5, Con. 2, Township Tisdale, 6.82 acres	34 10
Gordon H. Moyer, Cobalt, Ont.	
S. ½, Lot 9, Con. 3, Township Whitney, 1.74 acres	100 00
Estate of James Harrison.	
S. ½, Lot 3, Con. 1, Township Hoyle, 4.10 acres	230 00
Geo. W. Noyes.	
N. ½, Lot 11, Con. 4, Township Clergue, 3.91 acres	50 00
Jos. Thompson, Toronto, Ont.	
N. ½, Lot 11, Con. 6, Township German	10 00

Right of Way, Widdifield Diversion:

D. J. McKewen, North Bay, Ont.	
E. ½, Lot 21, Con. B, Township Widdifield; also Lots 312-345-6-7, Plan M. 153, Town of North Bay, 1 acre	1,500 00
Milton, J. Wallace, North Bay, Ont.	
Part Lot 17, Con. D, Township Widdifield, Town of North Bay, 5 acres	750 00
Isabelle Doran, North Bay, Ont.	
Part Lot 20, Con. B, Township Widdifield, 8.59 acres	1,500 00

The Young Company, Limited, North Bay, Ont.	
Lots 37-8-9-40-1-21-2-3, Plan M, 153, Town of North Bay, 1.5 acres..	1,000 00
J. T. Lindsay, North Bay, Ont.	
Lot 17, Con. C, Township Widdifield, 9.82 acres	1,000 00
Wm. J. Deylin, North Bay, Ont.	
Lot 5, Plan M, 153, Town of North Bay (2 shacks on lot), .2 acres	225 00
John Bourke, North Bay, Ont.	
S. $\frac{1}{2}$, Lot 17, Con. C, Township Widdifield, 5. acres; also 7. acres extra land within limits of Town of North Bay	2,850 00
Berry Biggs, North Bay, Ont.	
Part Lot 19, Con. B, Township Widdifield, 1.51 acres; also extra land, Parcel No. 327, 2.74 acres	750 00
John Dool, North Bay, Ont.	
Lot 6, Plan M. 85, Town of North Bay, .2 acres	100 00
C. E. Howes, North Bay, Ont.	
Parcel No. 328, Market Garden, Township Widdifield, 1.53 acres ..	600 00
Robert James, North Bay, Ont.	
Lot 4, Plan M. 85, Town of North Bay, .2 acres	100 00
O. Lorocque, North Bay, Ont.	
W. part, Lot 22, Con. B, Township Widdifield, 2.46 acres	350 00
O. Lorocque, North Bay, Ont.	
N. part of E. $\frac{1}{2}$, Lot 22, Con. B, Township Widdifield, .85 acres ..	100 00
O. Lorocque, North Bay, Ont.	
S. E. $\frac{1}{2}$, Lot 22, Con. B, Township Widdifield, 1.04 acres	100 00
Wm. McConnell, North Bay, Ont.	
Lots 2 and 3, Plan M. 85, Town of North Bay, .4 acres	650 00
James Stuffles, North Bay, Ont.	
Part S. $\frac{1}{2}$, Lot 18, Con. B, Township Widdifield, 5.92 acres	800 00
Ernest Eloy, North Bay, Ont.	
W. $\frac{1}{2}$, Lot 24, Con. B, Township Widdifield, 1.70 acres	200 00
Ernest Eloy, North Bay, Ont.	
W. $\frac{1}{2}$, Lot 23, Con. B, Township Widdifield, 4.56 acres	250 00
Ida Gauthier, North Bay, Ont.	
Part E. $\frac{1}{2}$, Lot 23, Con. B, Township Widdifield, 3.96 acres	300 00
Mrs. E. J. Knapp, North Bay, Ont.	
Part S. $\frac{1}{2}$, Lot 18, Con. B, Township Widdifield, Parcel No. 566, .48 acres	500 00
C. W. Knapp, North Bay, Ont.	
S. $\frac{1}{4}$ of S. $\frac{1}{2}$, Lot 19, Con. B, Township Widdifield, .4 acres	325 00
Estate of Mary Ellen Doyle, North Bay, Ont.	
E. $\frac{1}{2}$, Lot 24, Con. B, Township Widdifield, 1.6 acres	168 00
Mrs. Mary Martin, North Bay, Ont.	
W. $\frac{1}{2}$, Lot 22, Con. B, Township Widdifield, 1.90 acres	200 00
John Ellis, North Bay, Ont.	
Parcel 917, Township Widdifield, .73 acres	350 00
John Ellis, North Bay, Ont.	
Parcel 857, Township Widdifield, 1.46 acres	550 00
Eugene Racicot.	
Part Lot 17, Con. C, Township Widdifield, 5.73 acres (within limits of town of North Bay)	1,000 00
Mrs. Alex. McLeod, North Bay, Ont.	
S.W. $\frac{1}{4}$, Lot 17, Con. B, Township Widdifield, 1.21 acres	250 00
S. Weegar, North Bay, Ont.	
W. $\frac{1}{2}$, Lot 24, Con. 1, Township Widdifield, 2.91 acres	200 00
John E. Hughes.	
W. $\frac{1}{2}$, Lot 23, Con. 3, Township Widdifield	40 00
Department of Indian Lands, Ottawa, Ont.	
Right of Way re Widdifield Diversion, Township Commanda, Indian Lands, 86.03 acres	185 35
Treasurer of Ontario, Toronto, Ont.	
W. $\frac{1}{2}$, Lot 23, Con. 2, Township Widdifield, 1.82 acres	1 82
Wm. Roberts, North Bay, Ont.	
E. $\frac{1}{2}$, Lot 23, Con. 4, Township Widdifield, 5.68 acres	568 00
Treasurer of Ontario, Toronto, Ont.	
W. $\frac{1}{2}$, Lot 23, Con. 4, Township Widdifield ..	
W. $\frac{1}{4}$, Lot 24, Con. 4, Township Widdifield ..	
E. $\frac{1}{2}$, Lot 23, Con. 3, Township Widdifield ..	
Lot 24, Con. 2, Township Widdifield, 42.58 acres	42 58

Right of Way, Elk Lake Branch.

A. Bailey, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 2, Con. 6, Township Henwood, 6.01 acres	60 10
J. R. Bailey, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 3, Con. 6, Township Henwood, 5.99 acres	59 90
Ebenezer Brown, Ottawa, Ont.	
N. $\frac{1}{2}$, Lot 5, Con. 6, Township Barber, 6.15 acres	65 00
Peter Burns, Earlington, Ont.	
S. $\frac{1}{2}$, Lot 11, Con. 1, Township Armstrong, 4.15 acres	62 25
Jas. Chamount, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 9, Con. 2, Township Armstrong, 5.75 acres	57 50
Mary Cuthbertson, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 4, Con. 6, Township Henwood, 6.04 acres	302 00
G. L. Davey, Earlington, Ont.	
S. $\frac{1}{2}$, Lot 9, Con. 2, Township Armstrong, 3.82 acres	57 30
W. H. Fairman, Earlington, Ont.	
S. $\frac{1}{2}$, Lot 3, Con. 5, Township Cane, 6.02 acres	150 50
Alexander Gilmour, Earlington, Ont.	
S. $\frac{1}{2}$, Lot 10, Con. 5, Township Henwood, 3.82 acres	95 50
W. A. Howser, Earlington, Ont.	
S. $\frac{1}{2}$, Lot 6, Con. 3, Township Armstrong, .48 acres (Cleared)	65 00
W. H. Rodgers, Cobourg, Ont.	
S. $\frac{1}{2}$, Lot 10, Con. 1, Township Armstrong, 2.68 acres	26 80
William Meyers, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 12, Con. 6, Township Kerns, 6 acres	72 00
Albert Montpetit, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 8, Con. 2, Township Armstrong, 4.02 acres	40 20
Wm. Northwood, Ottawa, Ont.	
S. $\frac{1}{2}$, Lot 3, Con. 6, Township Barber, 6.05 acres	65 00
Wm. J. Reid.	
S. $\frac{1}{2}$, Lot 10, Con. 2, Township Armstrong, 2.99 acres	53 82
Jas. F. Robinson, Earlington, Ont.	
S. $\frac{1}{2}$, Lot 4, Con. 5, Township Cane, 6.12 acres	153 00
L. A. Ship, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 11, Con. 6, Township Kerns, 6. acres	90 00
Alex. Swindley, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 1, Con. 6, Township Henwood, 6.02 acres	90 30
W. J. Taylor, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 10, Con. 1, Township Armstrong, 6.79 acres	169 75
John Wilson, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 5, Con. 6, Township Henwood, 6.5 acres	162 50
Wm. Evans, Mount Forest, Ont.	
N. $\frac{1}{2}$, Lot 9, Con. 6, Township Barber, 1.74 acres	75 00
M. S. McNiven.	
N. $\frac{1}{2}$, Lot 7, Con. 6, Township Barber, 6.08 acres	100 00
M. Braeh, Milberta, Ont.	
Part S. $\frac{1}{2}$, Lot 11, Con. 5, Township Henwood, 4.87 acres	97 47
Thos. A. Dill, McCool P.O. Ont.	
N. $\frac{1}{2}$, Lot 8, Con. 6, Township Henwood, 1.32 acres	19 80
W. E. Kerr, New Liskeard, Ont.	
S. $\frac{1}{2}$, Lot 2, Con. 5, Township Cane, 4.95 acres	65 00
John Orr, Kingston, Ont.	
S. $\frac{1}{2}$, Lot 6, Con. 6, Township Henwood, 3.53 acres	50 00
M. Beach, Milberta, Ont.	
Part S. $\frac{1}{2}$, Lot 11, Con. 5, Township Henwood, 10.03 acres	50 00
John Foley, Hillview, Ont.	
N. $\frac{1}{2}$, Lot 12, Con. 5, Township Henwood, 6.08 acres	60 00
A. H. Neeley, Thornloe, Ont.	
N. $\frac{1}{2}$, Lot 10, Con. 5, Township Henwood, 3.8 acres	76 00
F. C. Cater, Earlington, Ont.	
N. $\frac{1}{2}$, Lot 11, Con. 5, Township Henwood, 1.33 acres	10 00
Alex. Melhorne, Ottawa, Ont.	
N. $\frac{1}{2}$, Lot 1, Con. 6, Township Barber, 1.61 acres	60 00
A. Walker, Picton, Ont.	
N. $\frac{1}{2}$, Lot 2, Con. 5, Township Cane, 1.3 acres	25 00
David Joseph Scollard, North Bay, Ont.	
S.E. part, Lot 4, Con. 1, Township James, 1.25 acres	100 00

Alfred Carr, Earleton, Ont.	
S. ½, Lot 7, Con. 3, Township Armstrong, 7.7 acres	1,500 00
Jos. Levellie.	
N. ½, Lot 6, Con. 3, Township Armstrong, 10.61 acres	1,750 00
Clarence Hayes, Couttsville, Ont.	
S. ½, Lot 9, Con. 6, Township Henwood, 3.9 acres	40 00
W. H. Small, Cane, Ont.	
S. ½, Lot 6, Con. 5, Township Cane, 0.1 acres	10 00
Wm. E. Small, Cane, Ont.	
S. ½, Lot 5, Con. 5, Township Cane, 5.95 acres	60 00
Alex. Swindley, Earleton, Ont.	
N. ½, Lot 1, Con. 6, Township Henwood, 5. acres	185 00
Irwin H. Hitchcock, Kingston, U.S.A.	
S. ½, Lot 10, Con. 1, Township Tudhope, 6.45 acres	500 00
Wm. Neil Fergusson, Chentu, China.	
S. ½, Lot 8, Con. 3, Township Armstrong, 3.17 acres	800 00
Wm. R. Clement, Ottawa, Ont.	
N. ½, Lot 8, Con. 6, Township Barber, 6.06 acres	60 60

Miscellaneous:

Salmon & Co., New Liskeard, Ont.	
Parts Lots 3-4-5, New Liskeard, Ont., Plan 44, .25 acres	1,500 00
Canadian Oil Companies, Limited, Toronto, Ont.	
Lots 36 & 37, McIntyre St., North Bay, Ont., with buildings thereon, 4 acres	5,000 00
Ernest H. Winslow, Heaslip, Ont.	
S. ½, Lot 5, Con. 2, Township Evanturel, 1. acre	50 00
Treasurer of Ontario, Toronto, Ont.	
N. ½, Lot 12, Con. 4, Township Clergue, 160. acres	156 29
Wm. Warrell, North Bay, Ont.	
Lots 35, South McIntyre St., 11 and 12 North Maine St., Maine St., in front of Lots 11 and 12, and South St., in front of Lot 11, 1. acre	2,200 00
Total	\$35,272 83

TOWNSITES ACCOUNT.

Statement of Lots Sold—Townsites.—Nov. 1st, 1911, to Oct. 31st, 1912.

Townsite.	Lots sold.	Amount paid.	Balance due.
Englehart	11	\$ 537 30	\$ 612 70
Matheson	25	1,609 00	1,441 00
Monteith	14	443 00	69 00
Iroquois Falls	11	543 75	1,336 25
Cochrane	123	12,602 50	2,887 50
Cochrane Annex	144	13,878 00	2,614 00
Cochrane Sub-Div. No. 2	66	7,143 35	1,256 65
Totals	394	\$36,756 90	\$10,217 10

Statement—Receipts and Expenditures—Townsites Account, Year ending Oct. 31st, 1912.

DEBIT.	CREDIT.
Cash in bank of Ottawa, November 1st, 1911	Disbursements
62,271 59	\$ 9,289 06
Lots sold, cash paid as per statement	
36,756 90	
Deferred payments received	
6,284 56	
Interest and other receipts	
1,087 10	
Interest on Deposits Bank of Ottawa	
1,900 71	
Totals	Cash in Bank of Ottawa, Oct. 31, 1912
\$108,300 86	99,011 80
	\$108,300 86

COMPARATIVE STATEMENT SHOWING EARNINGS AND EXPENDITURES IN OPERATION

FROM 1905 TO 1912, INCLUSIVE.

Year.	Freight.	Passenger.	Other Revenue.	Maintenance of Way and Structures.	Maintenance of Equipment.	Traffic Expenses.	Transportation Expenses.	General Expenses.	Total Revenue.	Total Expenditure.
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1905.....	121,530 46	108,681 76	23,508 33	25,072 89	12,533 68	.....	88,342 41	13,823 52	253,720 55	139,772 50
1906.....	230,552 63	254,759 33	58,706 89	77,265 87	46,382 65	.....	215,236 08	23,587 98	544,018 85	362,492 58
1907.....	390,894 29	388,343 03	74,282 69	112,395 22	88,016 79	.....	412,160 52	32,839 76	853,520 01	645,412 29
1908.....	471,203 41	366,504 53	135,357 67	125,563 43	119,563 01	9,789 99	405,907 58	24,863 45	973,065 61	688,397 45
1909 (10 mos.)	756,141 66	483,110 89	121,972 32	191,170 18	107,078 96	14,920 04	436,768 41	49,989 34	1,361,224 87	794,796 88
1910.....	852,886 46	606,967 91	131,997 65	380,314 75	137,340 46	17,705 31	556,740 45	76,045 66	1,591,852 02	1,165,361 36
1911.....	974,678 33	653,063 01	153,223 49	353,918 92	164,145 69	17,461 22	567,316 97	78,911 74	1,780,964 83	1,181,998 65
1912.....	929,464 66	599,681 73	178,303 68	346,964 01	249,683 22	12,499 96	676,963 33	93,625 91	1,707,450 07	1,384,697 69
	1,727,351 90	3,461,112 19	877,352 72	1,612,665 27	924,744 46	72,736 52	3,359,455 75	393,687 36	9,065,816 81	6,362,929 36

SUMMARY

Freight Revenue.....	\$4,727,351 90	Maintenance of Ways and Structures.....	\$1,612,665 27
Passenger Revenue.....	3,461,112 19	Maintenance of Equipment.....	924,744 46
Other Revenue.....	877,352 72	Transportation Expenses.....	3,359,455 75
		Traffic Expenses.....	72,376 52
		General Expenses.....	393,687 36
Total Revenue.....	<u>\$9,065,816 81</u>	Total Expenditure.....	<u>\$6,362,929 36</u>

Total Revenue from Transportation.....	\$9,065,816 81
Total Expenditure.....	<u>6,362,929 36</u>
Earnings—Ore Royalties, Etc.....	<u>2,702,887 45</u>
	473,643 74
Paid Treasurer of Ontario.....	<u>3,176,531 19</u>
	2,838,245 16
Balance at Profit and Loss.....	<u>338,286 03</u>

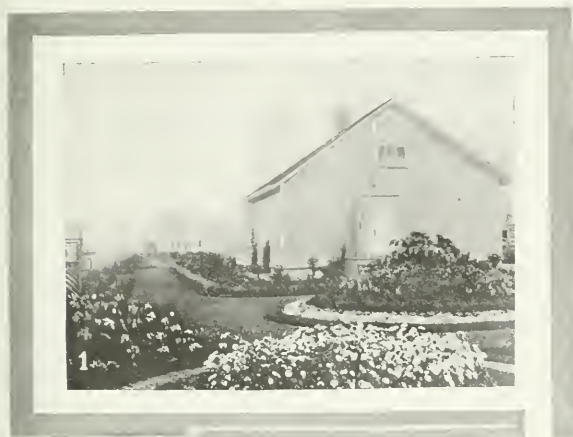
Statistics—Temiskaming and Northern Ontario Railway Commission

	Passengers.	Revenue.
		\$
Number of passengers carried during year 1905.....	86,648	108,681 76
.. .. . 1906.....	359,861	254,759 33
.. .. . 1907.....	518,678	388,343 03
.. .. . 1908.....	479,005	366,504 53
.. .. . 1909.....	580,748	483,110 89
.. .. . 1910.....	670,913	606,967 91
.. .. . 1911.....	479,102	653,063 01
.. .. . 1912.....	497,452	599,681 73
Totals.....	3,672,407	3,461,112 19

Number of passengers carried one mile, period 1905 to 1912, inclusive 141,016,387

	Tons.	Revenue.
		\$
Number of tons of freight carried during year 1905 ...	99,192	121,530 46
.. .. . 1906 ...	273,749	230,552 63
.. .. . 1907 ...	393,589	390,894 29
.. .. . 1908 ...	484,444	471,203 41
.. .. . 1909 ...	498,645	756,141 66
.. .. . 1910 ...	624,820	852,886 46
.. .. . 1911 ...	564,120	974,678 33
.. .. . 1912 ...	562,734	929,464 66
Totals.....	3,501,293	4,727,351 90

Number of tons of freight carried one mile, period 1905 to 1912, inclusive 320,248,540



Scenes at Englehart.



On beautiful Lake Sesekinika.



1. At Mileage 8, Elk Lake Branch.
2. Residency No. 3, Elk Lake Branch.
3. Camp No. 1, Elk Lake Branch.



On the Harricanaw River.

FINANCIAL STATEMENTS.

NIPISSING CENTRAL RAILWAY COMPANY.

GENERAL BALANCE SHEET.

ASSETS.		LIABILITIES.	
Property owned:		Debit:	
Valuation of road and equipment to June 21st, 1911	\$130,529 80	Capital stock	\$530,000 00
Cost of road and equipment to October 31st, 1912	55,593 94	Working Liabilities:	
		Accounts payable	33,157 63
Townsite Property—North Cobalt	\$186,123 74	Deferred Credit Item:	
	252,095 00	Accounts in suspense	7 50
		Free Surplus:	
		Profit and Loss—Balance	31,358 12
Working Assets:			
Cash	\$6,237 56		
Accounts collectable	96 50		
Bills receivable	266 50		
Balance due on townsite sales	26,616 32		
Material and supplies	2,151 67		
Net Balance due from Agents and Conductors	338 50		
	35,707 05		
Other Assets:			
Franchise	120,597 46		
	<u>594,523 25</u>		<u>\$594,523 25</u>
PROFIT AND LOSS.			
Balance carried forward	\$31,358 12	By Balance—October 31st, 1911	\$10,978 11
		By Net Revenue:	
		Operation	\$20,034 41
		Townsites	345 60
	<u>\$31,358 12</u>		<u>20,380 01</u>
			<u>\$31,358 12</u>

NIPISSING CENTRAL

Statement of Earnings and Expenditures—

RECEIPTS	Per cent.	November 1911	Per cent.	December 1911
I. Revenue from Transportation—		\$ c.		\$ c.
Passenger Revenue		4,132 00		4,284 50
Baggage Revenue.....		1 60		1 10
Parlor, Chair and Special Car Revenue		10 00		12 50
Switching Revenue.....		96 00		
Totals.....		4,239 60		4,298 10
II. Revenue from Operations other than Transportation—				
Station and Car Privileges				
Power.....				
Miscellaneous.....		25 00		4 00
Totals.....		25 00		4 00
Total Revenue.....		4,264 60		4,302 10
EXPENDITURES				
I. Maintenance of Way and Structures.	12.	513 10	10.	430 25
II. Maintenance of Equipment	11.3	482 74	6.1	262 14
III. Traffic Expenses.....	.7	30 00	1.8	77 64
IV. Transportation Expenses	51.9	2,217 99	46.1	1,984 22
V. General and Miscellaneous	5.7	242 94	3.3	141 01
Total Operating Expenses.....	81.6	3,486 77	67.3	2,895 26
Balance		777 83		1,406 84
Other Income—				
Deductions from Income—				
Net Result		777 83		1,406 84

RAILWAY

November 1st, 1911, to October 31st, 1912.

Per cent.	January 1912	Per cent.	February 1912	Per cent.	March 1912	Per cent.	April 1912
	\$ c.		\$ c.		\$ c.		\$ c.
.....	3,495 90	.....	3,021 60	.....	3,640 35	.....	3,821 35
.....	40	.....	25	.....	50	.....	1 50
.....	20 00	.....	45 00	.....	30 00	.....	10 00
.....	3,516 30	.....	3,066 85	.....	3,670 85	.....	3,832 85
.....		.....		.....		.....	1 00
.....	10 00	.....		.....		.....	5 00
.....	10 00	.....		.....		.....	6 00
.....	3,526 30	.....	3,066 85	.....	3,670 85	.....	3,838 85
10.5	369 90	15.1	463 02	8.9	326 99	13.4	514 50
2.8	100 10	5.3	163 28	2.5	90 50	2.1	81 64
.9	30 00	1.	30 00	.8	30 00	1.2	48 00
56.8	2,002 78	58.9	1,807 96	49.5	1,820 20	48.4	1,856 90
5.5	193 59	11.3	347 42	3.9	142 65	5.3	202 32
76.5	2,696 37	91.6	2,811 68	65.6	2,410 34	70.4	2,703 36
.....	829 93	.....	255 17	.....	1,260 51	.....	1,135 49
.....							
.....							
.....							
.....	829 93	.....	255 17	.....	1,260 51	.....	1,135 49

NIPISSING CENTRAL

Statement of Earnings and Expenditures—

RECEIPTS.	Per cent.	May 1912	Per cent.	June 1912
I. Revenue from Transportation—		\$ c.		\$ c.
Passenger Revenue		4,326 44		5,245 40
Baggage Revenue		3 05		8 30
Parlor, Chair and Special Car Revenue		30 00		30 00
Switching Revenue				
Totals		4,359 49		5,283 70
II. Revenue from Operations other than Transportation				
Station and Car Privileges		20 00		5 00
Power				7 50
Miscellaneous		9 13		438 90
Totals		29 13		451 40
Total Revenue		4,388 62		5,735 10
EXPENDITURES.				
I. Maintenance of Way and Structures	9.2	402 91	7.1	406 52
II. Maintenance of Equipment	2.4	106 02	1.8	101 94
III. Traffic Expenses	.7	30 00	.5	30 00
IV. Transportation Expenses	35.9	1,577 70	35.2	2,020 40
V. General and Miscellaneous	6.4	280 86	6.5	373 47
Total Operating Expenses	54.6	2,397 49	51.1	2,932 33
Balance		1,991 13		2,802 77
Other Income—				
Deductions from Income—				
Net Result		1,991 13		2,802 77

RAILWAY—Continued.

November 1st, 1911, to October 31st, 1912.

Per cent.	July 1912	Per cent.	August 1912	Per cent.	September 1912	Per cent.	October 1912	Per cent.	Total, Nov. 1, 1911 to Oct. 31, 1912
	\$ c.		\$ c.		\$ c.		\$ c.		\$ c.
.....	5,682 00	.....	5,255 95	.....	4,846 15	.....	4,995 95	.....	52,747 59
.....	7 50	.....	6 75	.....	7 00	.....	6 40	.....	44 35
.....	30 00	.....	50 00	.....	.....	.....	15 00	.....	282 50
.....	.....	.....	.....	.....	.....	.....	.....	.....	96 00
.....	5,719 50	.....	5,312 70	.....	4,853 15	.....	5,017 35	.....	53,170 44
.....	6 32	.....	4 25	.....	5 31	.....	2 21	.....	44 09
.....	.....	.....	.....	.....	.....	.....	.....	.....	7 50
.....	74 50	.....	29 30	.....	24 16	.....	19 67	.....	639 66
.....	80 82	.....	33 55	.....	29 47	.....	21 88	.....	691 25
.....	5,800 32	.....	5,346 25	.....	4,882 62	.....	5,039 23	.....	53,861 69
.....									
5.7	332 19	5.5	295 32	6.5	316 17	10.7	540 95	9.1	4,911 82
1.2	67 35	1.	53 55	5.9	288 60	4.8	243 21	3.8	2,041 07
.4	22 50	.6	30 00	2.4	116 82	.6	30 00	.9	504 96
34.6	2,009 56	37.3	1,994 39	44.8	2,186 53	41.8	2,105 17	43.8	23,583 80
5.9	340 01	2.9	156 60	3.9	190 30	3.5	174 46	5.2	2,785 63
47.8	2,771 61	47.2	2,529 86	63.5	3,098 42	61.4	3,093 79	62.8	33,827 28
.....	3,028 71	.....	2,816 39	.....	1,784 20	.....	1,945 44	.....	20,034 41
.....									
.....									
.....	3,028 71	.....	2,816 39	.....	1,784 20	.....	1,945 44	.....	20,034 41

NIPISSING CENTRAL

Statement of Expenditures, November

Maintenance of Way and Structures.	November, 1911	December, 1911	January, 1912	February, 1912	March, 1912
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Superintendence of way and structures	30 00	30 00	30 00	30 00	30 00
Rails.....					
Rail fastenings and joints.....					
Roadway and track labor.....	397 10	233 00	195 00	132 00	196 70
Miscellaneous roadway and track ex- penses	8 00	6 68			35
Cleaning and sanding track			35		
Removal of snow, ice and sand.....			1 28	211 02	4 38
Bridges, trestles and culverts					
Other miscellaneous way expenses		3 90			
Poles and fixtures.....					
Transmission system	39 00	37 50	41 84	37 50	42 75
Distribution system	39 00	37 50	40 50	37 50	52 09
Buildings and structures.....		81 67	60 93	15 00	72
Totals	513 10	430 25	369 90	463 02	326 99
Maintenance of Equipment.					
Superintendence of equipment.....	30 00	30 00	30 00	31 29	30 00
Power plant equipment.....					
Passenger and combination cars.....	114 67	129 00	59 42	71 25	52 80
Freight, express and mail cars.....					
Service cars				43	
Electric equipment of cars.....	338 07	68 19	5 08	60	1 44
Shop machinery and tools		2 81		55 95	
Shop expenses.....		32 14	5 60	3 76	6 26
Totals.....	482 74	262 14	100 10	163 28	90 50
Traffic Expenses.					
Superintendence and solicitation.....	30 00	30 00	30 00	30 00	30 00
Advertising.....		47 64			
Miscellaneous traffic expenses					
Totals.....	30 00	77 64	30 00	30 00	30 00
Transportation Expenses.					
Superintendence of Transportation....	30 00	30 00	30 00	30 00	30 00
Group I—Power					
Substation employees	269 14	221 97	256 73	280 50	155 00
Lubricants for power		2 30			
Miscellaneous power plant supplies and expenses			1 60	80	
Substation supplies and expenses.....				80	
Power purchased.....	820 72	824 55	878 35	813 98	732 56
Group II—Operation of cars.					
Passenger conductors, motormen and trainmen	706 74	701 77	714 76	619 08	693 15
Miscellaneous car-service expenses....	318 29	39 08	34 96	Cr 32 67	18 43
Station expenses.....	1 00	61 00	26 38	28 00	56 37
Carhouse employees	72 10	103 55	60 00	67 47	134 69
Totals	2,217 99	1,984 22	2,002 78	1,807 96	1,820 20

RAILWAY.

1st, 1911, to October 31st, 1912.

April. 1912	May. 1912	June. 1912	July. 1912	August, 1912	September. 1912	October, 1912	Total.
\$ c. 30 00	\$ c. 30 00	\$ c. 30 00	\$ c. 30 00	\$ c. 34 50	\$ c. 30 00	\$ c. 30 00	\$ c. 364 50
.....	79	4 31	.....	24	.....	.....	5 34
.....	03	.....	.....	.....	.....	.....	03
313 80	201 09	290 10	298 46	257 00	237 40	483 16	3,234 81
.....	.....	16 73	1 72	1 18	.....	.....	15 03
.....	.....	.....	.....	.....	.....	.....	19 98
.....	.....	1 00	.....	.....	.....	.....	216 68
.....	.....	3 40	.....	2 40	.....	.....	1 00
1 16	.....	2 30	.....	.....	.....	.....	9 70
93 65	85 50	58 59	.....	.....	.....	.....	3 46
75 75	85 50	09	2 01	.....	48 77	9 65	436 33
14	.....	.....	.....	.....	.....	18 14	428 36
.....	.....	.....	.....	.....	.....	.....	176 60
514 50	402 91	406 52	332 19	295 32	316 17	540 95	4,911 82
.....							
30 00	30 00	30 00	30 00	30 00	30 00	30 00	361 29
2 00	4 20	.....	.....	.....	.....	4 20	10 40
35 74	42 81	41 16	16 86	17 47	Cr. 1 00	185 11	765 29
.....	.....	.....	5 19	.....	.....	.....	5 19
.....	.....	.....	.....	.....	.....	.....	43
12 17	28 38	27 46	15 20	5 62	256 05	23 90	782 16
.....	.....	3 32	.....	46	.....	.....	62 54
1 73	63	.....	10	.....	3 55	.....	53 77
81 64	106 02	101 94	67 35	53 55	288 60	243 21	2,041 07
.....							
30 00	30 00	30 00	30 00	30 00	30 00	30 00	360 00
.....	.....	.....	.....	.....	86 82	.....	134 46
18 00	.....	.....	Cr. 7 50	.....	.....	.....	10 50
48 00	30 00	30 00	22 50	30 00	116 82	30 00	504 96
.....							
30 00	30 00	30 00	30 00	30 00	30 00	30 00	360 00
142 50	155 00	155 00	155 00	155 00	150 00	155 00	2,250 84
.....	.....	.....	.....	.....	.....	.....	2 30
.....	.....	.....	.....	.....	.....	.....	2 40
710 28	241 12	699 39	720 01	697 28	688 69	836 45	80
.....	.....	.....	.....	.....	.....	.....	8,663 38
651 95	751 94	734 05	731 72	765 20	722 02	668 79	8,461 17
15 62	99 14	80 22	Cr. 62 10	13 91	335 92	82 53	943 33
13 64	.....	6 70	20 95	1 25	18 85	51 15	285 29
292 91	300 50	315 04	413 98	331 75	241 05	281 25	2,614 29
1,856 90	1,577 70	2,020 40	2,009 56	1,994 39	2,186 53	2,105 17	23,583 80

NIPISSING CENTRAL

Statement of Expenditures—November 1st, 1911.

General Expenses.	November, 1911	December, 1911	January, 1912	February, 1912	March, 1912
	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Salaries and expenses of general officers	30 00	30 00	30 00	30 00	30 00
Salaries and expenses of general office clerks	85 00	85 00	85 00	85 00	85 00
General office supplies and expenses...	11 71	21 66	10 98	11 82	8 65
Law expenses.....	10 30	.....	42 30	210 00	.....
Miscellaneous general expenses.....	.....	1 35	15	40	14 00
Undistributed Accounts.					
Injuries and damages .....	.....	.....	.....	.....	.....
Insurance .....	.....	3 00	7 16	.....	.....
Stationery and printing.	105 93	.....	18 00	10 20	5 00
Totals.....	242 94	141 01	193 59	347 42	142 65

MISCELLANEOUS

November 1st, 1911.

	November, 1911	December, 1911	January, 1912	February, 1912	March, 1912
Passenger car, hours.....	1,180.75	1,197.	1,175.50	1,037.50	1,180.75
Passenger car, miles	11,807.	11,967.	11,755.	10,375.	11,807.
Total passengers carried.....	54,613.	55,630.	47,740.	42,566.	51,056.
Average daily receipts.....	\$141.60	\$138.65	\$113.51	\$105.82	\$118.37
Average receipts per car hour.....	3.59 $\frac{3}{4}$	3.59	2.99	2.96	3.10 $\frac{1}{2}$
Average receipts per car mile	.35 $\frac{3}{4}$	.36	.29 $\frac{3}{4}$	.29 $\frac{1}{2}$	.31 $\frac{1}{2}$

RAILWAY—Continued

to October 31st, 1912—Continued.

April, 1912	May, 1912	June, 1912	July, 1912	August, 1912	September, 1912	October, 1912	Total.
\$ c. 30 00	\$ c. 30 00	\$ c. 30 00	\$ c. 30 00	\$ c. 30 00	\$ c. 30 00	\$ c. 30 00	\$ c. 360 00
85 00	85 00	85 00	90 00	90 00	90 00	90 00	1,040 00
11 72	32 24	8 87	4 11	2 00	4 00	14 81	142 57
.....	.....	250 00	210 00	25 00	50 00	12 75	810 35
90	Cr. 75	Cr. 40	3 40	3 35	12 55	75	35 70
.....	.....	.....	.....	.....	.....	25 00	25 00
67 20	134 37	.....	.....	.....	.....	.....	211 73
7 50	.....	.....	2 50	6 25	3 75	1 15	160 28
202 32	280 86	373 47	340 01	156 60	190 30	174 46	2,785 63

STATISTICS

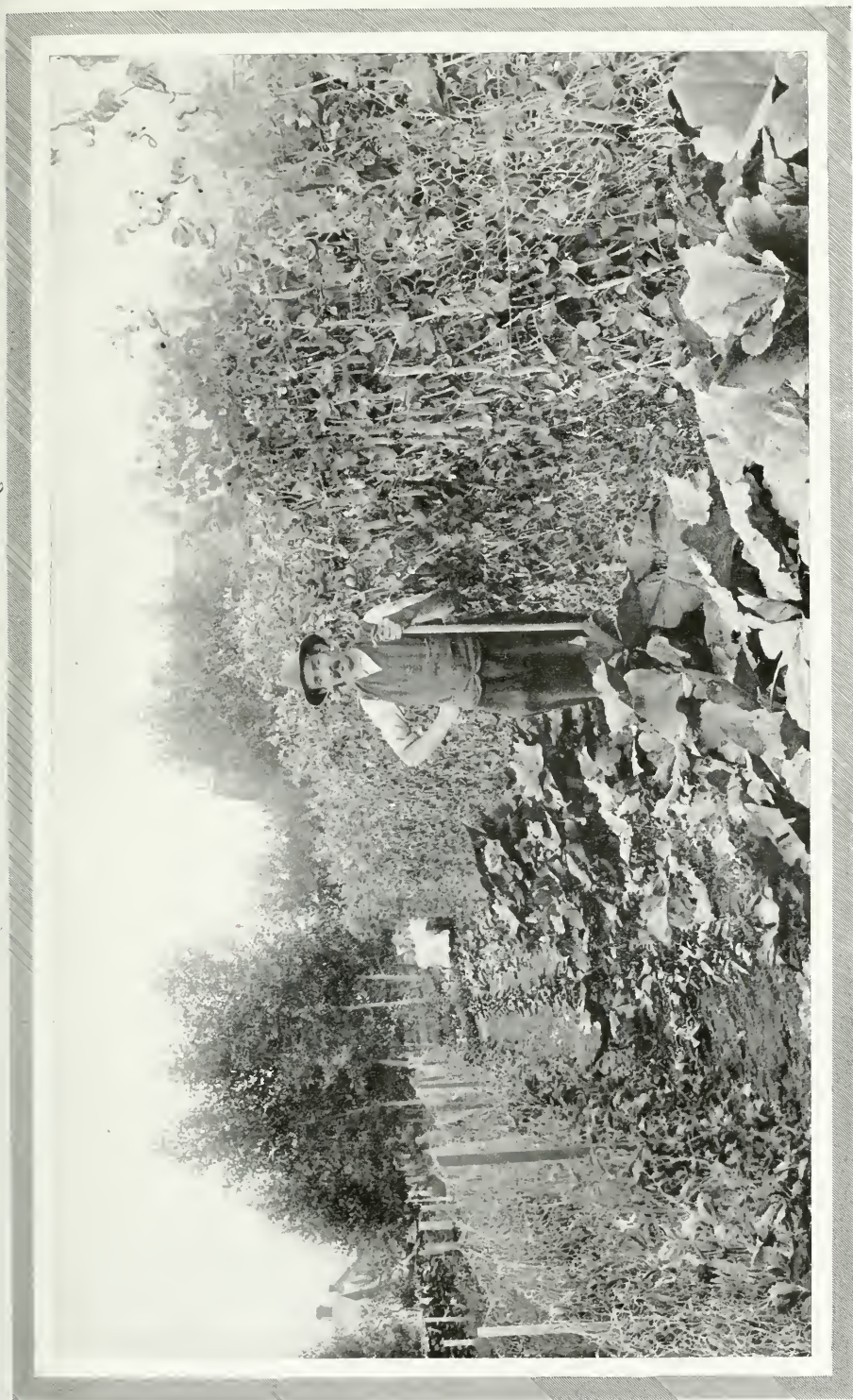
to October 31st, 1912.

April, 1912	May, 1912	June, 1912	July, 1912	August, 1912	September, 1912	October, 1912	Total.
1,160.	1,211.50	1,259.50	1,293.50	1,274.	1,216.	1,227.	14,413.
11,600.	12,115.	12,595.	12,935.	12,740.	12,160.	12,275.	144,131.
51,507.	58,223.	72,165.	77,183.	72,823.	70,219.	69,478.	723,203.
\$127.81½	\$136.51	\$176.64	\$184.69	\$171.58¾	\$162.86	\$161.68½	\$145.27
3.30½	3.49	4.20	4.42½	4.17½	4.02	4.09	3.69
.33	.34¾	.42	.44	.41	.40	.40	.37

STATEMENT SHOWING AMOUNT EXPENDED ON NEW LISKEARD EXTENSION

To October 31st, 1912.

Engineering	\$1,755 01
Right of way	865 00
Grading	9,481 59
Ballasting	489 93
Ties	5,765 09
Rails	1,953 21
Special Work	563 07
Track laying and surfacing	6,077 92
Bridges, trestles and culverts	2,315 01
Crossings, fences, cattle guards and signs	285 79
Poles and fixtures	3,514 08
Distribution system	22,828 91
Miscellaneous	6 95
	\$55,901 56



• A Garden at Haileybury.

TENDERS FOR THE CONSTRUCTION OF FOUR NEW VANS WERE
RECEIVED AS FOLLOWS:

Preston Car & Coach Company, Preston.—\$2,024.00 f.o.b. C. P. R.
tracks, Preston.
Canadian Car & Foundry Co., Montreal.—\$1,975.00 f.o.b. tracks
Turcot Works.

Tender of Canadian Car & Foundry Company accepted.

ARTICLES OF AGREEMENT made in duplicate this 17th day of April,
in the year of our Lord, One thousand nine hundred and twelve.

BETWEEN:

THE CANADIAN CAR AND FOUNDRY COMPANY, LIMITED, here-
inafter called the Contractor,

and

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY
COMMISSION, hereinafter called the Commission.

WITNESSETH:

1. In this contract, the words "Master Mechanic" shall mean the Master Mechanic for the time being, of the Commission, and the word "Inspector" shall mean the Inspector for the time being, appointed by such Master Mechanic, to represent and act for the Commission in the supervision of the construction and in the inspection of the conductors' vans herein referred to.

2. The Contractor will supply and provide all and every kind of work, labor, materials, articles and things whatsoever for the due construction and completion, and will well and truly build and complete in a perfect and workmanlike manner, four steel underframe conductors' vans with all necessary appliances for use on the line of railway of the Commission, in strict compliance with the specifications hereto annexed and with the plans and drawings relating thereto, (save and except that the Westinghouse automatic quick action air brake apparatus mentioned in the said specifications shall be furnished by the Commission, subject to the said vans being properly equipped therewith by the Contractor), to the complete satisfaction of the Master Mechanic. The Contractor will deliver the said Conductors' vans completed to the Commission, free, on the railway tracks of the Commission at the town of North Bay on or before the thirty-first day of October, 1912, time being agreed to be material and of the essence of this contract, and in default of such delivery within the time aforesaid the Contractor will pay to the Commission by way of liquidated damages the sum of Ten Dollars (\$10.00) in respect of each van each day which shall elapse after the date aforesaid before delivery of such vans, respectively, which sums the Commission is authorized to deduct from the purchase price hereinafter mentioned. PROVIDED, HOWEVER, that such damages shall not be recoverable in respect of any delays occasioned by strikes, accidents, or other delays which are unavoidable or beyond the control of the Contractor.

3. The Contractor will furnish and deliver to the Commission at Toronto, without extra charge, two complete sets of blue prints of all detailed plans of said vans, and until delivery of such blue prints, the Contractor shall not be deemed, for the purposes of this contract, to have delivered said vans, or to be entitled to payment therefor.

4. The Master Mechanic shall be the sole judge of all work and material done and supplied under this contract, and his decision under all questions in dispute with regard to any such work or material shall be final, and the whole work shall be executed to his satisfaction, as evidenced by his certificates in writing, which certificate shall be a condition precedent to the right of the Contractor to be paid therefor.

5. The said Master Mechanic, and any Inspector from time to time authorized by him on that behalf, shall have free entry and access to the works of the Contractor at all times while this contract is being performed, and shall have all reasonable facilities afforded to him and his Inspectors as aforesaid to satisfy him that same is being carried out and performed in accordance with this contract.

6. The acceptance and payment for said vans or any of them shall not be considered as any waiver of the obligations of the Contractor with reference thereto.

7. This contract will not be considered as fully completed until the guarantee clause in the attached specifications respecting materials, workmanship, wheels, axles, truck springs, etc., has been fully complied with. The books or other records of the Commission shall be taken as final and conclusive evidence in respect of all matters mentioned in said guarantee.

8. The Commission in consideration of the premises, covenants with the Contractor that the Contractor from time to time and in all respects having fulfilled and performed the provisions of this contract (except the fulfillment of the guarantee which is to continue as aforesaid), on the Contractor's part intended to be fulfilled and performed, will be paid for, and in respect of each of the said conductor's vans, the sum of one thousand nine hundred and sixty-five (\$1,965.00), together with the freight on said conductors' vans from Turcot railway station, Quebec, to the Commission's tracks at North Bay, the payments to be made within thirty days after the delivery of each van on the tracks of the said Commission at North Bay, respectively.

IN WITNESS WHEREOF, the parties have caused these presents to be executed under the respective corporate seals and under the hands of their respective officers on that behalf.

WITNESS:

(Sgd.) F. J. TURNBULL.

CANADIAN CAR AND FOUNDRY COMPANY,
LIMITED.

(Sgd.) W. W. BUTLER, *President*.

(Sgd.) T. A. SKELTON, *Secy-Treas.*
(Seal.)

TEMISKAMING AND NORTHERN ONTARIO
RAILWAY COMMISSION.

(Sgd.) J. L. ENGLEHART, *Chairman*.

(Sgd.) A. J. MCGEE, *Sec.-Treas.*

(Seal.)



Station at Englehart.

CONSTRUCTION MONTREAL RIVER BRIDGE—ELK LAKE BRANCH.

Tenders were received as follows:

Canada Foundry Company	\$5 00 per 100 lbs.
Canadian Bridge Company	4 96 per 100 lbs.
Dominion Bridge Company	4 90 per 100 lbs.
Hamilton Bridge Works Company	4 86 per 100 lbs.

CONTRACT AWARDED TO HAMILTON BRIDGE WORKS COMPANY.

ARTICLES OF AGREEMENT made (in duplicate) this 31st day of May in the year of our Lord one thousand nine hundred and twelve.

BETWEEN:

THE HAMILTON BRIDGE WORKS COMPANY, LIMITED, herein-after called the Contractor.

and

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, hereinafter called the Commission.

WITNESSETH:

1. In this contract the word "Engineer" shall mean the Chief Engineer for the time being of the Commission and having control of the work of construction of the railway lines of the Commission, and the word "Inspector" shall mean the Inspector for the time being appointed by such Chief Engineer to represent and act for the Commission in the supervision of the construction and completion of the work herein contracted for.

2. The Contractor will supply and provide all and every kind of work, labour, materials, articles and things whatsoever necessary for the due construction and erection and will well and truly build, erect and complete in a perfect and workmanlike manner one two hundred and twenty-foot clear span truss bridge at the Montreal River crossing at or near mileage 22.8 of the Elk Lake branch of the railway line of the Commission with all necessary appliances in strict compliance with the latest Dominion Government specifications as to material and workmanship and class, heavy loading of same, specifications as to strength, except so far as such latest Dominion Government specifications are modified by the general specifications hereto annexed, and in strict compliance with the general specifications and plans hereto annexed, and to the complete satisfaction of the Engineer as to the erection and completion thereof; it being agreed that the said works shall include the placing of ties and guard rails and the painting of the structure after erection; it being agreed that the said structure shall be completely fabricated on or before the 15th day of September, 1912, and that the same shall be completely erected and the work under this contract completed on or before the 28th day of October, 1912; time to be deemed to be material and of the essence of this contract.

3. The Contractor shall submit all drawings and detailed plans for the approval of the Engineer of the Commission before material is ordered or work commenced.

4. The Engineer shall be the sole judge of the material and workmanship used in the said structure, and in the erection thereof and of the due completion of the work under this contract, and his decision on all questions in dispute with regard to such material and workmanship or with regard to the execution and completion of work under this contract shall be final, and the work shall be executed to his satisfaction, as evidenced by his certificate in writing, which certificate shall be a condition precedent to the right of the Contractor to be paid for such work.

5. The Engineer, and all persons from time to time authorized by him on his behalf, shall have free entry and access to the works of the Contractor at all times while this contract is being performed and shall have all reasonable facilities afforded him and his representatives, as aforesaid, to satisfy them that same is being carried out and performed in accordance with this contract.

6. All portions of the structure to be manufactured under this contract shall be weighed and loaded on cars in presence of the Engineer or Inspector, and if any material is weighed upon the cars, such cars, including all blocking to be used in supporting the steel work thereon, must similarly be weighed in the presence of the Engineer or Inspector before being loaded, and the certificate in writing of the Engineer or Inspector, certifying to the correctness of all weights of goods charged for hereunder, shall be a condition precedent to the right of the Contractor to be paid for said work.

7. All materials, plant and tools required for or in connection with the said work shall be delivered by the Contractor on the tracks of the Commission, at North Bay, f.o.b. cars, but same and the Engineers and other workmen of the Contractor necessary for the erection of the said structure shall be transported and conveyed by the Commission from North Bay to the said site free of charge to the Contractor, and the Commission shall further transport and convey such Engineers, workmen, tools and erection plant back from the said site to North Bay free of charge to the Contractor.

8. The Commission, in consideration of the premises, covenants with the Contractor that the Contractor from time to time, in all respects having fulfilled and performed the provisions of this contract on the Contractor's part entitled to be fulfilled and performed, will be paid for and in respect of the said work the sum of four dollars and eighty-six cents per hundred pounds weight in said structure, provided, however, that said weight shall not exceed by more than two per cent, the total weight as computed from the said plans, and that the Commission shall in no case be liable to pay for any weight beyond two per cent, in excess of the total weight as computed from said plans, which price shall be payable as follows: Sixty per cent, of the value of any shipment of material on delivery of same on board cars at the works of the Contractor, in Hamilton; twenty per cent, additional upon delivery of same on the tracks of the Commission at North Bay, f.o.b. cars, and the balance on monthly progress estimates certified by the Engineer as the erection of the work proceeds, the final payment to be made within forty days after the final certificate of the Engineer.

IN WITNESS WHEREOF the said parties have caused these presents to be executed under their respective corporate seals, and under the hands of their proper officers in that behalf.

WITNESS:

(Sgd.) E. E. DEAN.

THE HAMILTON BRIDGE WORKS COMPANY,
LIMITED.

(Sgd.) R. M. ROY, *Manager*.

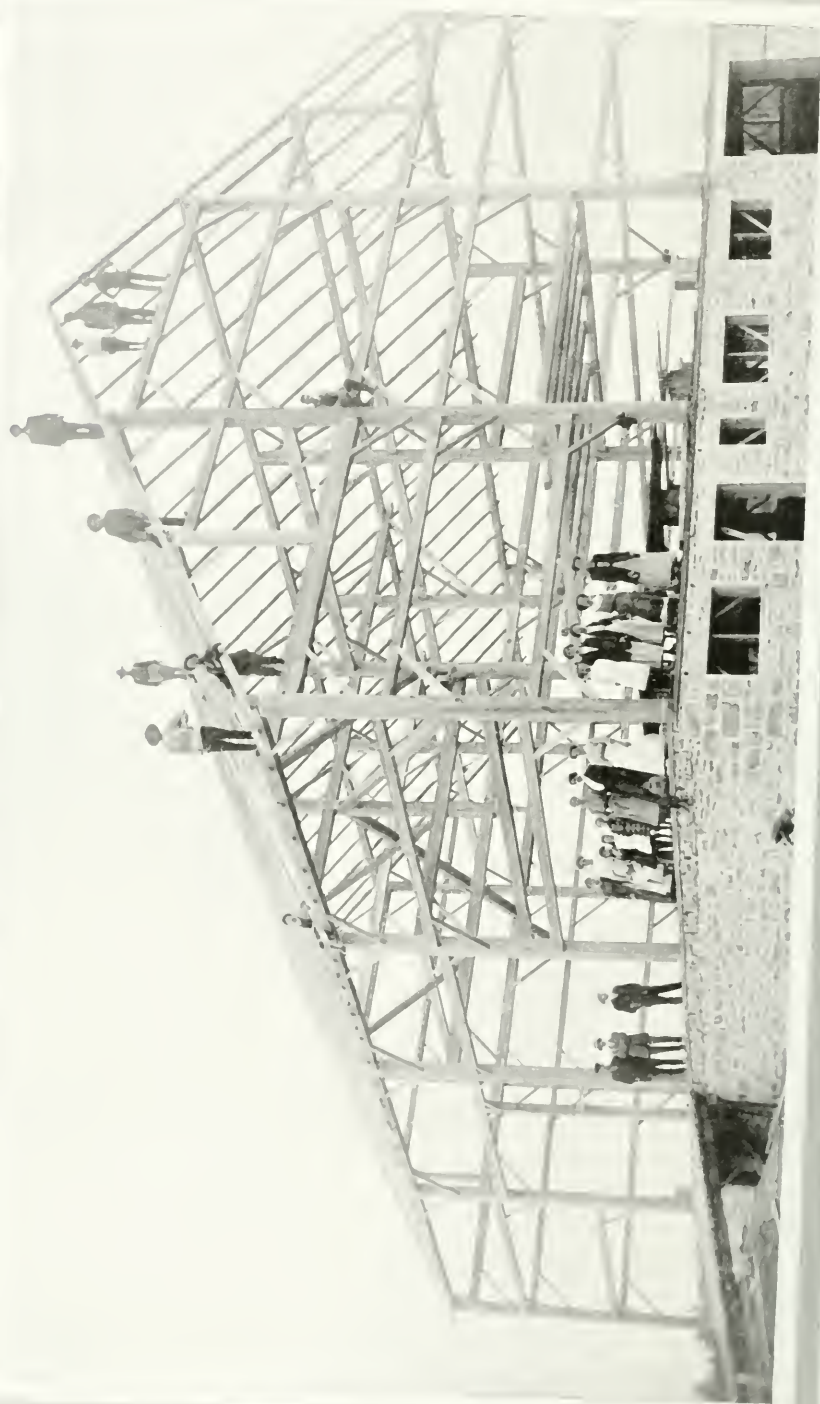
(Seal.)

THE TEMISKAMING AND NORTHERN ON-
TARIO RAILWAY COMMISSION.

(Sgd.) J. L. ENGLEHART, *Chairman*.

(Sgd.) A. J. MCGEE, *Sec.-Treas.*

(Seal.)



Barn raising in the "Empire of the North."

TENDERS FOR DELIVERY OF 85,000 TONS OF BITUMINOUS COAL—
REQUIREMENTS YEAR 1912-1913, WERE RECEIVED AS FOLLOWS:

F. P. Weaver Coal Co., "Lincoln":—	
Subject to change in freight and mining rates.....	\$2 10
Subject to change in freight rates only	2 15
Buffalo & Susquehanna, "Sagamore":—	
Subject to change in mining scale	1 94
Goff-Kirby Coal Co., "Bessemer":—	
Without conditions	2 05
Lindsay & McCluskey, "Valley Camp"	2 13
"Freeport," \$1.00 f.o.b. mines	2 10
Subject to change in mining scale.	
Pittsburg & Buffalo Co., "Johnetta," \$1.00 mines; \$1.10 freight ..	2 10
Subject to change freight scale.	
Shawmut Coal & Coke Co., "Shawmut":—	
Subject to change freight scale, etc.	2 05
W. F. Marshall, "McKnight," etc.:—	
Subject to freight changes, strikes, scale, etc.	2 05
Pittsburg, Westmorland Coal Co., "Youghioghenny":—	
Subject to changes, rates, etc.	2 35
Fort Palmer Coal & Coke Co., "Fort Palmer":—	
Subject to changes, etc. (40,000 tons only)	2 35
Jno. F. Sowards, "Lucerne" or "Iselin"	2 05
Will assume change in mining scale	2 10
Pittsburg & South Western Coal Co., "Donohoe":—	
Subject to all changes	2 35
Widnoon Coal Co., 25,000 tons screened "Widnoon," mine run	2 08
Subject to all changes	2 06
A. J. Morgan, "Pittsburg," No. 8:—	
Subject to all changes	2 23
Standard Fuel Company:—	
Subject to all changes	1 94

Awarded:—

- Buffalo & Susquehanna Coal & Coke Co.—60,000 tons at \$1.94 per net ton, f.o.b. International Bridge. Subject to increase in mining scale.
- Standard Fuel Company, Ltd., Toronto.—25,000 tons at \$1.94 per ton, f.o.b. International Bridge. Subject to increase in mining scale, and coal being up to grade of ten test cars furnished.

MEMORANDUM OF AGREEMENT made this first day of April in the year of our Lord one thousand nine hundred and twelve.

BETWEEN:

THE STANDARD FUEL COMPANY, Limited, of Toronto, Ontario, hereinafter called the Contractor.

and

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, hereinafter called the Commission.

1. Subject to the terms hereof, the Contractor agrees to sell to the Commission, and the Commission agrees to buy from the Contractor, twenty-five thousand net tons run of mine coal, of Shawmut Coal and Coke Company's mine, at the price of one dollar and ninety-nine cents per net ton (two thousand pounds) on board cars International Bridge, Black Rock, N. Y. Delivery as required up to April 1st, 1913, and subject to provisions hereinafter stated.

2. The Contractor absolutely guarantees (*a*) that all coal to be delivered under this contract shall be equal in quality and in suitability for the purposes of the railway of the Commission to the ten cars of coal delivered by the Contractor to the Commission for the purpose of test; (*b*) that all coal to be delivered under this contract shall be suitable for the purposes of the railway of the Commission, and (*c*) shall on analysis in manner hereinafter provided prove to be at least equal to the following, which is agreed to be the standard analysis:

Moisture	1.05
Hydro Carbons	31.35
Fixed Carbons	59.88
Ash	7.72
	100.00
Sulphur	1.90

3. Samples for the purpose of analysis may be taken (so far as deemed necessary by the Commission) from each carload of coal on or at any time after the arrival thereof at North Bay and may be so taken at any point on the railway of the Commission and such sample shall consist of not less than twenty-five pounds of lump and slack in the same relative proportion as appears in the shipment, to be taken in carload by the Superintendent, the Master Mechanic or the Storekeeper of the Commission, and any sample so taken shall be conclusively presumed to be a fair sample for purposes of analysis of such carload and the certificates of Milton L. Hersey, Analyst and Chemist, of Montreal, as to whether such sample answers the aforesaid guarantee (*c*) of the Contractor shall be absolutely final, binding and conclusive upon the parties as to whether the carload from which such sample has been taken answers such guarantee.

4. In case on analysis, as aforesaid, any carload of coal delivered under this contract shall be found below standard quality as shown by the analyst's certificate as aforesaid, the Commission shall be at liberty to reject such carload, or the portion of it not used, notwithstanding that delivery of same may theretofore have been taken; notwithstanding that the necessary entries for passing same through the Customs may have been made, and notwithstanding that same may have been unloaded or stored or wholly or partly paid for or otherwise dealt with, and thereupon the same shall be at the risk of and shall be deemed for all purposes to be the property of the Contractor, who shall forthwith remove and take delivery of same and repay to the Commission all moneys which the Commission may have paid in respect thereof whether for freight, duties, cost of analysis, storage, unloading or any other charges or expenses, and if the Commission shall theretofore have paid the price or any part thereof, the Contractor shall forthwith repay the same. IT BEING, HOWEVER, EXPRESSLY AGREED THAT the aforesaid right of the Commission to reject any coal so delivered shall be in addition to all its other legal rights and remedies in the premises, and not in substitution for same or any of them.

5. Should coal at any time delivered under this contract, whether analyzed as aforesaid or not, and irrespective of the result of such analysis, prove in the opinion of the Master Mechanic or Superintendent of the Commission, unsuitable for the purposes of the railway of the Commission, the Commission may, at its option by notice in writing to the Contractor, cancel and annul this contract as to any coal not theretofore shipped without prejudice to the liability of the Contractor for any breaches of this contract.

6. Beginning with the month of April, 1912, there shall be shipped by the Contractor from the mines, properly consigned to the Commission at North Bay Junction, with all freight and other charges prepaid to International Bridge, Black Rock, N. Y., approximately three cars per day, subject to the increase or diminution from time to time of the daily shipments as shall be required by written notice, by letter or telegram, from the Storekeeper of the Commission at North Bay to the Contractor at Toronto, such notice to be duly sent from North Bay at least one week prior to the week to the shipments of which such notice shall apply. Coal will be sold at initial manifest weights which shall be binding and no claim shall be allowed for short weight except in the case of unusual loss by reason of defective cars. Provided and required that twenty-five per cent. of daily shipments of said coal be delivered in flat-bottomed cars.

7. The Commission shall further have the right at any time to cancel its purchase hereunder to the extent of not more than ten per cent. of the quantity of coal covered by this contract, in which case such ten per cent. or less proportion as the case may be shall be taken from the last deliveries herein agreed upon.

8. If during the continuance of this contract the Commission shall at any time be unable to make use of the aforesaid quantities of said coal by reason of strike or destruction or disability of the railway or equipment of the Commission or any part thereof, the Commission shall have the right during the continuance of such disability at its option to discontinue taking coal in the quantities herein specified or to reduce the quantities of coal herein specified, and if the Contractor shall be prevented by reason of strikes, accidents or shutdowns at the mine, for reasons wholly beyond the control of the Contractor and of the Mining Company, it shall be entitled to defer deliveries wholly or partially accordingly. PROVIDED, however, that the discontinuance or deferring or reduction of deliveries by either the Commission or the Contractor, as aforesaid, shall not be deemed to cancel this contract as to the quantities of coal, delivery of which shall be so deferred or discontinued, but shall operate to extend the time of delivery merely.

9. At the time of each shipment the Contractor shall send to the Storekeeper of the Commission, at North Bay, five correct copies of invoice of the coal covered by such consignment, charged at the price of one dollar and ninety-nine cents per ton aforesaid, two of which copies shall be duly certified, as required by the Canadian Customs Law.

10. Payments shall be made by the Commission to the Contractor in Toronto funds, for all coal delivered to the Commission at North Bay in any one month, on or before the 20th day of the following month.

11. This contract shall enure to the benefit of and be binding upon the successors and assigns of the parties respectively.

AS WITNESS the corporate seals of the said parties under the hands of the proper officers in that behalf.

THE STANDARD FUEL CO., OF TORONTO.

(Sgd.) K. R. MARSHALL.

(Sgd.) JAMES A. GLOVER, *Secy.*

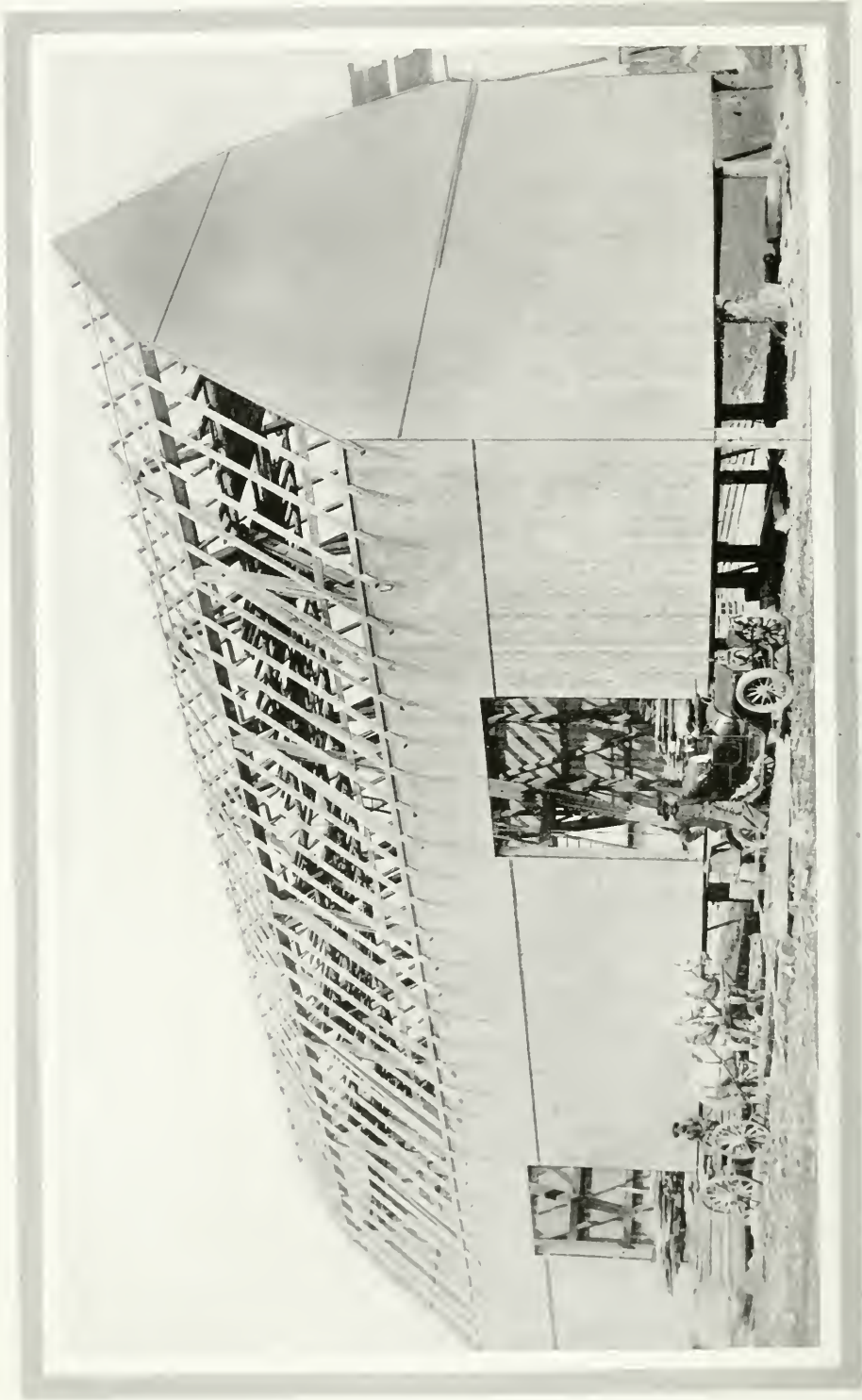
(Seal.)

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION.

(Sgd.) J. L. ENGLEHART, *Chairman.*

(Sgd.) A. J. MCGEE, *Sec.-Treas.*

(Seal.)



Evidence of Northern Prosperity.

MEMORANDUM OF AGREEMENT made this 1st day of April in the year of our Lord 1913.

BETWEEN :

BUFFALO AND SUSQUEHANNA COAL AND COKE COMPANY, of Buffalo N. Y., hereinafter called the Contractors.

and

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, hereinafter called the Commission.

1. Subject to the terms hereof the Contractors agree to sell to the Commission, and the Commission agrees to buy from the Contractors, sixty thousand net tons run of mine coal, of Sagamore Mine, at the price of one dollar and ninety-nine cents per net ton (two thousand pounds) on board cars International Bridge, Black Rock, N.Y., delivery as required up to April 1st, 1913, and subject to the provisions hereinafter stated.

2. The Contractors absolutely guarantee (a) that all coal to be delivered under this contract shall be suitable for the purposes of the railway of the Commission, and (b) shall on analysis, in manner hereinafter provided, prove to be at least equal to the following, which is agreed to be the standard analysis:

Moisture	1.25
Hydro Carbons	32.75
Fixed Carbons	58.25
Ash	7.75
	100.00
Sulphur	1.3 to 1.6

3. Samples for purpose of analysis may be taken (so far as deemed necessary by the Commission) from each earload of coal on or at any time after the arrival thereof at North Bay, and may be so taken at any point on the railway of the Commission, and such sample shall consist of not less than twenty-five pounds of lump and slack in the same relative proportion as appears in the shipment, to be taken from earload by the Superintendent, the Master Mechanic, or the Store-keeper of the Commission, and any sample so taken shall be conclusively presumed to be a fair sample for purposes of analysis of such earload, and the certificate of Milton L. Hersey, analyst, and chemist, of Montreal, as to whether such sample answers the aforesaid guarantee (b) of the Contractors shall be absolutely final, binding and conclusive upon the parties as to whether the earload from which such sample has been taken answers such guarantee.

4. In case of analysis as aforesaid, any earload of coal delivered under this contract shall be found below standard quality, as shown by analyst's certificate as aforesaid, the Commission shall be at liberty to reject such earload or the portion of it not used, notwithstanding that delivery of same may theretofore have been taken: notwithstanding that the necessary entries for passing same through the Customs may have been made, and notwithstanding that same may have been unloaded or stored or wholly or partly paid for or otherwise dealt with

and thereupon the same shall be at the risk of and shall be deemed for all purposes to be the property of the Contractors, who shall forthwith remove and take delivery of same and repay to the Commission all moneys which the Commission may have paid in respect thereof, whether for freight, duties, cost of analysis, storage, unloading or any other charges or expenses, and if the Commission shall theretofore have paid the price, or any part thereof, the Contractors shall forthwith repay the same. IT BEING, HOWEVER, EXPRESSLY AGREED THAT the aforesaid right of the Commission to reject any coal so delivered shall be in addition to all its other legal rights and remedies in the premises, and not in substitution for same or any of them.

5. Should coal at any time delivered under this contract, whether analyzed as aforesaid or not and irrespective of the result of such analysis, prove, in the opinion of the Master Mechanic or Superintendent of the Commission, unsuitable for the purposes of the railway of the Commission, the Commission may at its option, by notice in writing to the Contractors, cancel and annul this contract as to any coal not theretofore shipped without prejudice to the liability of the Contractors for any breaches of this contract.

6. Beginning with the month of April, 1912, there shall be shipped by the Contractors from the mines, properly consigned to the Commission, at North Bay Junction, and with all freight and other charges prepaid to International Bridge, Black Rock, N. Y., approximately seven cars per day, subject to the increase or diminution from time to time of the daily shipments as shall be required by written notice, by letter or telegram, from the Storekeeper of the Commission, at North Bay, to the Contractors, at Buffalo, such notice to be duly sent from North Bay at least one week prior to the week to the shipments of which such notice shall apply. Coal will be sold at initial manifest weights, which shall be binding and no claim shall be allowed for short weight except in the case of unusual loss by reason of defective cars. Provided and required that twenty-five per cent. of daily shipments of said coal be delivered in flat-bottomed cars.

7. The Commission shall further have the right at any time to cancel its purchase hereunder to the extent of not more than ten per cent. of the quantity of coal covered by this contract, in which case such ten per cent. or less proportion, as the case may be, shall be taken from the last deliveries herein agreed upon.

8. If, during the continuance of this contract, the Commission is unable to make use of the said coal by reason of strike, destruction or disability of its railway, or any part thereof, the Commission shall have the right during the continuance of such disability at its option to discontinue taking coal in the quantities herein specified.

It is also understood that should Contractors encounter strikes, accidents, shut-downs at the mines, from reasons beyond their control, they shall not be expected to deliver on this contract during the period of suspension.

9. At the time of each shipment the Contractor shall send to the Storekeeper of the Commission, at North Bay, five correct copies of invoice of the coal covered by such consignment, charged at the price of one dollar and ninety-nine cents per ton aforesaid, two of which copies shall be duly certified as required by the Canadian Customs law.

10. Payments shall be made by the Commission to the Contractor, in Toronto funds, for all coal delivered to the Commission at North Bay in any one month, on or before the 20th day of the following month.

11. This contract shall inure to the benefit of and be binding upon the successors and assigns of the parties respectively.

AS WITNESS the corporate seals of the said parties under the hands of the proper officers in that behalf.

WITNESS:

BUFFALO AND SUSQUEHANNA COAL AND
COKE COMPANY.

(Sgd.) M. N. DRULLARD.

(Sgd.) J. W. TROUNCE.

(Seal.)

THE TEMISKAMING AND NORTHERN ON-
TARIO RAILWAY COMMISSION.

(Sgd.) J. L. ENGLEHART, *Chairman*.

(Sgd.) A. J. MCGEE, *Sec.-Treas.*

(Seal.)

MEMORANDUM OF AGREEMENT made (in duplicate) this 8th day of November, in the year of our Lord one thousand nine hundred and twelve.

BETWEEN:

TEMISKAMING TELEPHONE COMPANY, LIMITED, hereinafter
called the Company.

and

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY
COMMISSION, hereinafter called the Commission.

WHEREAS the Company operates a telephone system in the District of Nipissing, in the Province of Ontario, and in the County of Pontiac, in the Province of Quebec, and the Commission operates a long distance telephone system from North Bay to Englehart, in the said District of Nipissing.

AND WHEREAS, subject to the terms hereinafter stated, the parties have agreed to an interchange of telephone conversations and messages between their systems.

NOW THESE PRESENTS WITNESS that the agreement between the parties in the premises is as follows:

1. The Company agrees to permit and provide in its telephone offices at the Town of Cobalt and the Town of Englehart the equipment necessary for an interchange of telephone conversations and messages between the telephone systems of the parties, under the general rules and regulations of the Commission and at the charges hereinafter provided for.



Cochrane Union Station.

2. The Company shall erect at its own cost two No. 10 N.B.S. copper metallic circuits between its office at the Town of Cobalt and the said office of the Commission, at Cobalt, and one No. 10 N.B.S. copper metallic circuit between its office at the Town of Englehart, and the said office of the Commission, at Englehart. These circuits shall be erected under the supervision of the Chief Engineer of the Commission and shall be terminated at the Commission's offices in such manner as such Chief Engineer shall designate and shall be equipped with such efficient protective devices against lightning and heavy currents as the said Chief Engineer may approve.

3. The Company shall equip at least two cord circuits of its switch boards in each of its offices through which connections are made with the lines of the Commission with repeating coils of a type to be approved by the said Chief Engineer, and in no case shall the Company permit any grounded circuit to be connected with the Commission's line except by the use of one of the cord circuits so equipped.

4. Each party shall maintain its telephone lines and the instruments and apparatus connected therewith in good working order and shall make repairs thereto with all reasonable despatch and shall use in connection with its telephone system only standard long distance telephones.

5. Each party shall keep on file with the other a list of the toll charges for the respective lines and the charges made for all interchanged business shall, so far as the parties hereto are concerned, be the sum of the regularly established rates of the parties.

6. Neither party shall have the right to transmit any messages free over the lines of the other party.

7. Each party shall be entitled to enforce a reasonable messenger service charge for the delivery of messages to non-subscribers, or for calling non-subscribers to the telephone, and no commission shall be payable by either party to the other in respect of charges for such messenger service.

8. The Company's offices at Cobalt and Englehart shall time all conversations and messages interchanged, and shall decide the rates to be charged thereon in accordance with the provisions of this agreement.

9. The Company shall keep an accurate record, in such form as shall be required by the Commission, of all telephone traffic originating upon the telephone system of the Company and passing over the lines of the Commission: also of all telephone traffic originating upon the lines of the Commission or upon the lines of other telephone systems with which the lines of the Commission may connect and passing over the lines of the Company, for the use of which a toll charge is payable to the Company. A copy of such record shall on or before the 10th day of each month be furnished by the Company to the Commission in respect of the preceding month, and the Commission, with the aid of such record, shall within ten days from the receipt thereof prepare and deliver to the Company a statement showing an adjustment of accounts between the parties in respect of such preceding month, and the balance payable by one party to the

other shall be payable forthwith upon the delivery of such account. All statements shall be subject to correction and verification, and for this purpose the books and records of each of the parties hereto shall be open for inspection by the other party.

10. The Commission shall pay to the Company, and there shall accordingly be credited to the Company in each of such monthly statements a percentage as follows: Twenty-five per cent. of the net receipts received by the Commission, exclusive of all amounts payable to the proprietors of systems not owned by the Commission for conversations originating on the Company's lines.

11. The Company shall pay to the Commission, and there shall accordingly be credited to the Commission in each of such monthly statements a percentage as follows: Twenty-five per cent. of the net receipts received by the Company, exclusive of all amounts payable to the proprietors of systems not owned by the Company for conversations originating on the Commission's lines.

12. All messages originating on the lines of the Company and passing over the lines of the Commission shall be interchanged at the interchange office of the Company nearest to the office of the Company at which the messages originate, and the tolls for all such messages shall be charged accordingly.

13. The Company shall indemnify the Commission against all claims for amounts due or alleged to be due to the proprietor of other telephone systems for long distance tolls, terminal fees or messenger charges for services furnished to the Company's subscribers.

14. Neither party shall be liable to the other for any error in sending messages, or for the failure of any conversation, whether it be the fault of the operator, agent or other person, or from any other cause whatsoever, and each party shall be liable (if there be any liability) for any accident, damage, losses or costs occurring in or incurred at or on its lines or instruments.

15. Each of the parties shall have the right to refuse to allow or accept calls or business to or from any office or subscriber on the system of the other whose telephone and equipment in its estimation is not in proper order to give satisfactory service, or if the lines and apparatus are not maintained in an efficient condition to give good talking results.

16. Officials' railway business shall at all times be entitled to precedence over other business on the Commission's lines.

17. Should the Commission find it necessary to load or otherwise improve its long distance telephone system in order to carry on satisfactory long distance telephone conversations, the Company shall make such changes in its telephone system as shall be necessary to enable the maximum benefit of such loading to be obtained.

18. This agreement shall not be transferable by either party without the consent in writing of the other party, and shall continue in force for one year from the date thereof, and thereafter until terminated by written notice of not less than three months by the one party to the other, and on the termination of such agreement the Company shall be entitled to remove its telephone instrument in the Commission's office, and the Commission shall be entitled to disconnect the lines of the parties.

19. In case the Company shall commit a wilful breach of this agreement, or any part thereof, or shall be guilty of any misconduct in the collection or handling of tolls, or shall otherwise act in any manner inconsistent with or contrary to the good faith which ought to be observed between the parties, the Commission shall have the right to peremptorily terminate this agreement, in which case all the right and interest of the Company hereunder shall thereupon cease and be at an end.

AS WITNESS the corporate seals of the parties hereto under the hands of their proper officers.

SIGNED, SEALED AND DELIVERED,

WITNESS:

A. N. MORGAN.

TEMISKAMING TELEPHONE CO., LTD.,

GEORGE TAYLOR, *President*.

P. R. CRAVEN, *Sec.-Treasurer*.

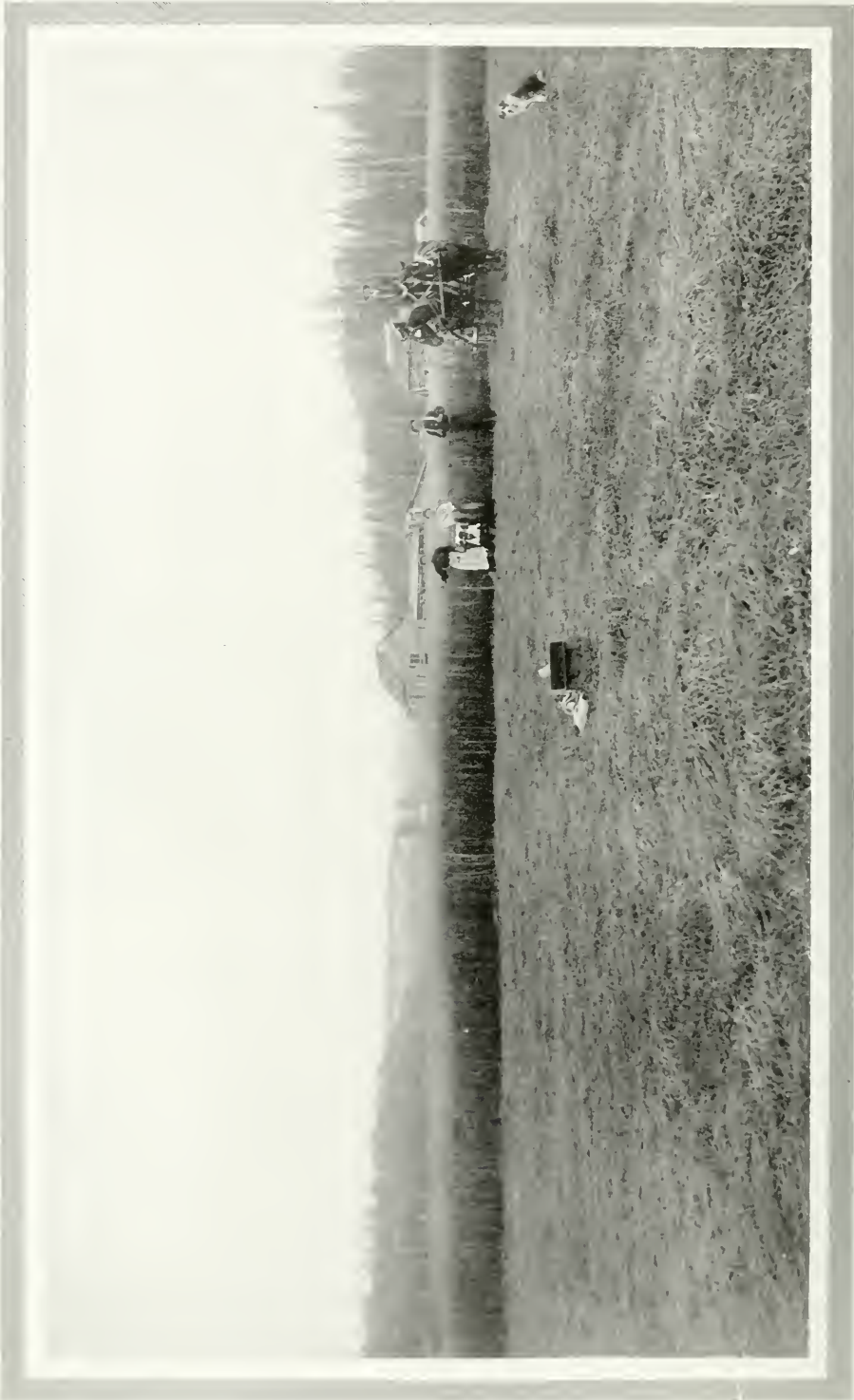
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TEMISKAMING AND NORTHERN ONTARIO
RAILWAY COMMISSION.

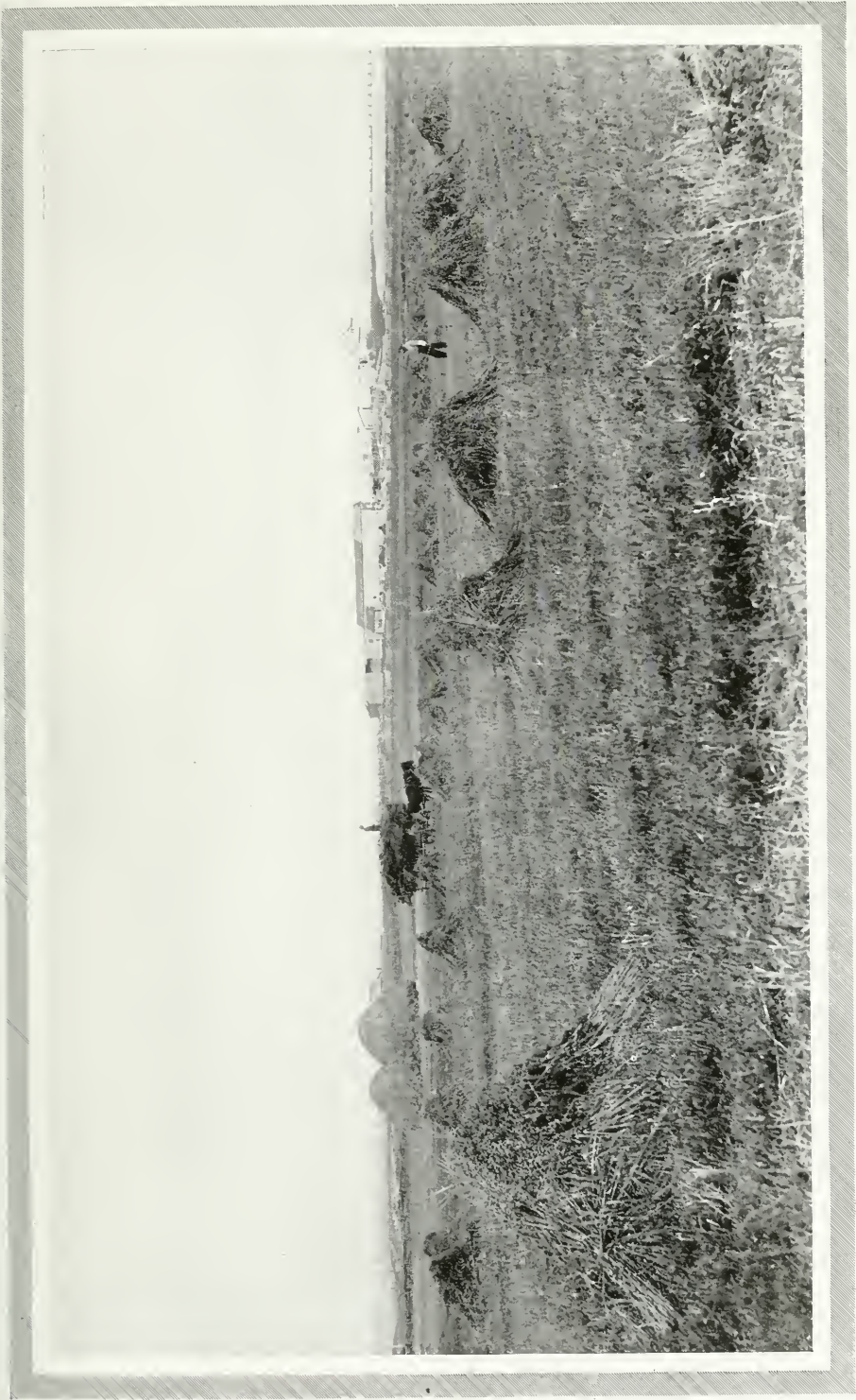
J. L. ENGLEHART, *Chairman*.

A. J. MCGEE, *Sec.-Treasurer*.

(Seal)



A pioneer settlement in Marter.



Harvesting the crops in the land of plenty.

CONSTRUCTION OF FOUR CONSOLIDATION LOCOMOTIVES.

Tenders received:—

Montreal Locomotive Company, delivery in 3 months...	\$22,000 00
Canadian Locomotive Company, Kingston, delivery	
April 1st	21,450 00
Canada Foundry Company	22,000 00

Contract awarded to Canadian Locomotive Company, Kingston.

ARTICLES OF AGREEMENT made (in duplicate) this first day of November, in the year of our Lord one thousand nine hundred and eleven.

BETWEEN:

THE CANADIAN LOCOMOTIVE COMPANY, LIMITED, hereinafter called the Contractor,

and

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, hereinafter called the Commission.

WITNESSETH:

1. In this contract the words "Master Mechanic" shall mean the Master Mechanic for the time being of the Commission, and the word "Inspector" shall mean the Inspector for the time being appointed by the Master Mechanic to represent and act for the Commission in the supervision and in the inspection and certification of the locomotive engines hereinafter referred to.

2. The Contractor will supply and provide all and every kind of labor, work, materials, articles and things whatsoever necessary for the due construction and completion, and will well and duly build and complete in a perfect and workmanlike manner four Consolidation Locomotive Engines, with all necessary appliances (including one complete set of extra parts—according to specifications), for the use on the line of Railway of the Commission, in strict compliance with the specifications herenunto annexed and with the plans relating thereto and to the complete satisfaction of the Master Mechanic, and will deliver the same complete to the Commission F.O.B. on the Commission's tracks at North Bay, Ontario, on or before the 1st day of May, 1912; time being agreed to be material and of the essence of this contract, and in default of such delivery within the time aforesaid the Contractor will pay to the Commission by way of liquidated damages the sum of ten dollars in respect of each of the said locomotive engines for each day which may elapse after the said 1st day of May, 1912, before delivery of said locomotive engines respectively, which sum the Commission is authorized to deduct from the price hereinafter mentioned.

PROVIDED, HOWEVER, that such damages shall not be recoverable in respect of any delays caused wholly by strikes, fires, accidents or other unavoidable occurrences wholly beyond the control of the Contractor.

3. The Contractor shall submit all drawings and detail plans for the approval of the master mechanic of the Commission before material is ordered or work commenced, and will furnish and deliver to the said Master Mechanic at North

Bay, without extra charge, one complete set of blue prints of all drawings and details, plans of locomotive engines, and until delivery of such blue prints the Contractor shall not be deemed for the purpose of this contract to have delivered such locomotive engines or be entitled to payment therefor.

4. The Master Mechanic shall be the sole judge of all work and material done and supplied under this contract, and his decision on all questions in dispute with regard to any such work or material shall be final, and the whole work shall be executed to his satisfaction, as evidenced by his certificate in writing, which certificate shall be a condition precedent to the right of the Contractor to be paid therefor.

PROVIDED, HOWEVER, that in case the Contractor shall be dissatisfied with the decision of the Master Mechanic in reference to any question of the interpretation of the specifications or any part thereof, the Contractor shall, on giving notice to the Secretary of the Commission within ten days from notice to the Contractor of such decision, have the right to appeal therefrom to the Superintendent of Motive Power of the Canadian Pacific Railway Company, and in case of any such appeal the decision of such Superintendent thereon shall be final and binding upon both parties. Any expense in connection with such appeal shall be borne by the Contractor.

5. The Master Mechanic or Inspector or any person deputed by them, or either of them, to represent them, or either of them in their absence, shall have free entry and access to the works of the Contractor at all times while this contract is being performed, and shall have all reasonable facilities afforded to them and their representatives as aforesaid to satisfy them that the same is being carried out and performed in accordance with this contract.

6. The acceptance of and payment for said locomotive engines or any of them by the Commission shall not be considered as any waiver of the obligations of the Contractor hereunder.

7. The Commission in consideration of the premises covenants with the Contractor that the Contractor, from time to time, and in all respects having fulfilled and performed the conditions of this contract (except fulfilment of the guarantee which is to continue as set out in the specifications) on the Contractor's part intended to be fulfilled and performed, shall be paid for each of the said locomotive engines the sum of twenty-one thousand four hundred and fifty dollars (\$21,450.00) within thirty days after delivery of said locomotive engines respectively as aforesaid.

IN WITNESS WHEREOF the said parties have caused these presents to be executed under their respective corporate seals and under the hands of the proper officers in that behalf.

CANADIAN LOCOMOTIVE CO'Y., LIMITED.

A. W. WHEATLEY, *Vice-President
and General Manager.*

J. J. HARTY, *Secretary.*

(Seal)

TEMISKAMING AND NORTHERN ONTARIO
RAILWAY COMMISSION.

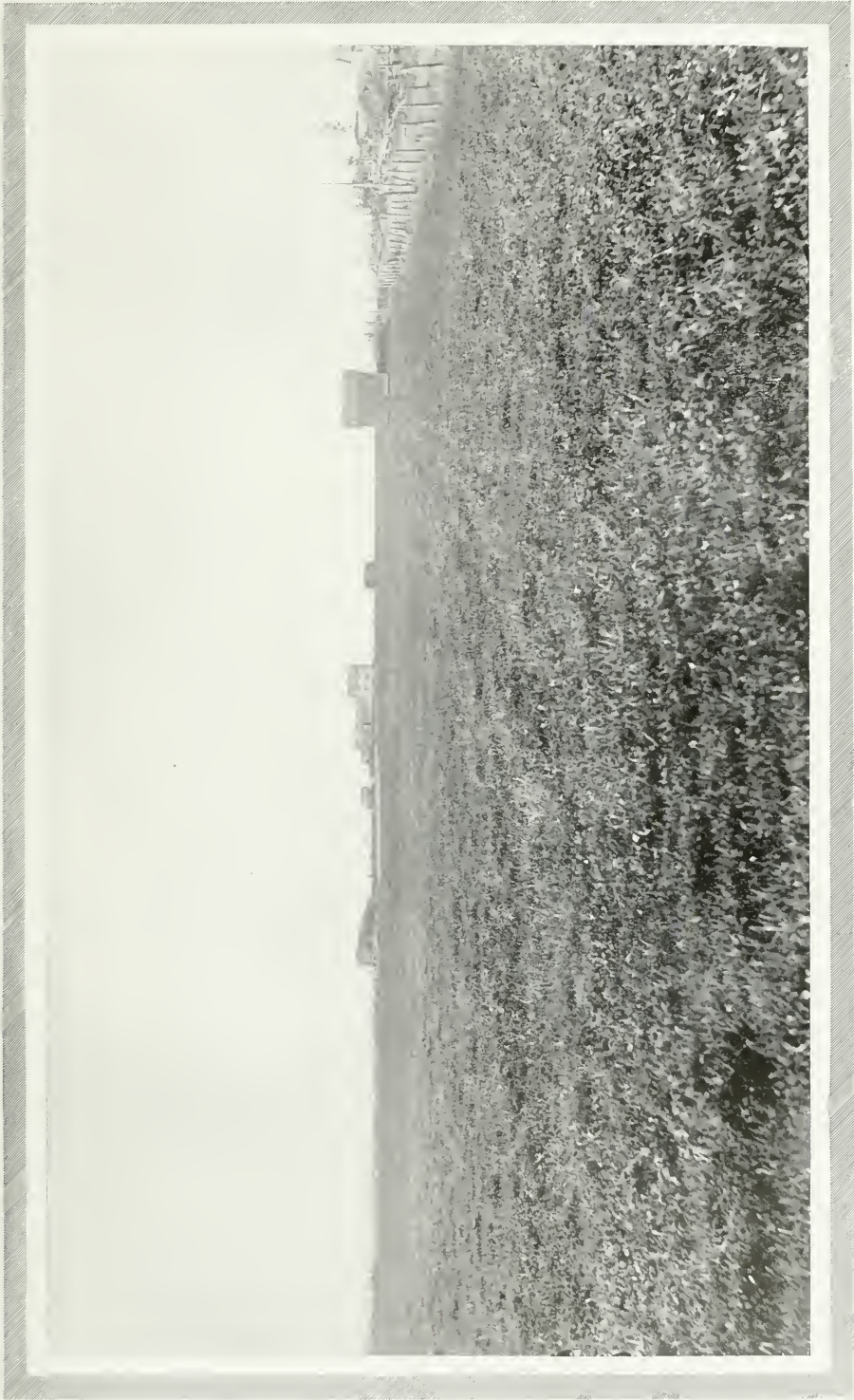
J. L. ENGLEHART, *Chairman.*

A. J. MCGEE, *Sec-Treasurer.*

(Seal)



The fertility of the soil is apparent.



Settler's Home and Clover Field near New Liskeard.

CONSTRUCTION OF PORCUPINE BRIDGE.

Tenders received:—

The Canadian Bridge Company, Ltd., Walkerville.—\$3.35 per 100 lbs.,
f.o.b. North Bay Jet.

The Hamilton Bridge Works Company, Hamilton.—\$3.20 per 100 lbs.
f.o.b. cars North Bay.

Dominion Bridge Company, Ltd., Montreal.—\$3.15 per 100 lbs., del.
cars North Bay Jet.

Contract awarded to Hamilton Bridge Works Company, Hamilton, Ont.

ARTICLES OF AGREEMENT made (in duplicate) this 31st day of January, in the year of our Lord one thousand nine hundred and twelve.

BETWEEN:

HAMILTON BRIDGE WORKS CO., LIMITED, hereinafter called the
Contractor,

and

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY
COMMISSION, hereinafter called the Commission.

WITNESSETH:

1. In this Contract the word "Engineer" shall mean the Chief Engineer for the time being of the Commission, and having control of the work of construction of the railway line of the Commission north of North Bay, and the word "Inspector" shall mean the Inspector for the time being appointed by such Chief Engineer to represent and act for the Commission in the supervision of the construction and completion of the work herein contracted for.

2. The Contractor will supply and provide all and every kind of work, labor, materials, articles and things whatsoever necessary for the due construction and completion, and will well and duly build and complete in a perfect and workmanlike manner one one hundred foot Deck Plate Girder Span Bridge for the crossing of the Porcupine River by the line of railway of the Commission at or near Mileage 17.7 of said Porcupine Branch, with all necessary appliances ready to receive the rails in strict compliance with the latest Dominion Government specifications as to material and workmanship and class heavy loading of same specifications as to strength, except so far as such latest Dominion Government specifications are modified by the general specifications hereto annexed, and in strict compliance with the general specifications hereto annexed, all to the complete satisfaction of the Engineer as to material and workmanship of the structure, and as to the due completion thereof; it being agreed that the said work shall include the painting of the structure, and will deliver the said bridge complete on the tracks of the Commission at North Bay f.o.b. cars on or before the 15th day of February, 1912; time to be deemed to be material and of the essence of this contract.

3. The Contractor shall submit all drawings and detailed plans for the approval of the Engineer of the Commission before material is ordered or work commenced.

4. The Engineer shall be the sole judge of the material and workmanship used in the said structure, and of the due completion thereof, and his decision on all questions in dispute with regard to such material and workmanship, or with regard to the completion of said structure, shall be final, and same shall be executed to his satisfaction as evidenced by his certificate in writing, which certificate shall be a condition precedent to the right of the contractor to be paid for said work.

5. The Engineer and all persons from time to time authorized by him on his behalf shall have free entry and access to the works of the contractor at all times while this contract is being performed, and shall have all reasonable facilities afforded him and his representatives as aforesaid to satisfy them that same is being carried out and performed in accordance with this contract.

6. All portions of the structure to be manufactured under this contract shall be weighed and loaded on cars in presence of the Engineer or Inspector, and if any material is weighed upon the cars such cars, including all blocking, to be used in supporting the steel work thereon must similarly be weighed in the presence of the Engineer or Inspector before being loaded, and the certificates in writing of the Engineer or Inspector certifying to the correctness of all weights of goods charged for hereunder shall be a condition precedent to the right of the Contractor to be paid for said work.

7. The Commission in consideration of the premises, covenants with the Contractor that the Contractor from time to time in all respects having fulfilled and performed the provisions of this contract on the Contractor's part entitled to be fulfilled and performed will be paid for, and in respect of the said work the sum of three dollars and twelve cents per hundred pounds weight in said structure payable as follows: seventy-five per cent. thereof upon delivery of said bridge on board cars at works of the contractor at Hamilton, and the balance within thirty days after the delivery of said bridge on the tracks of the Commission at North Bay Junction f.o.b. cars on presentation of the invoice and certificate of the Engineer.

IN WITNESS WHEREOF the said parties have caused these presents to be executed under their respective corporate seals and under the hands of their proper officers in that behalf.

HAMILTON BRIDGE WORKS COMPANY, LIMITED,

R. M. ROY, *Manager*.

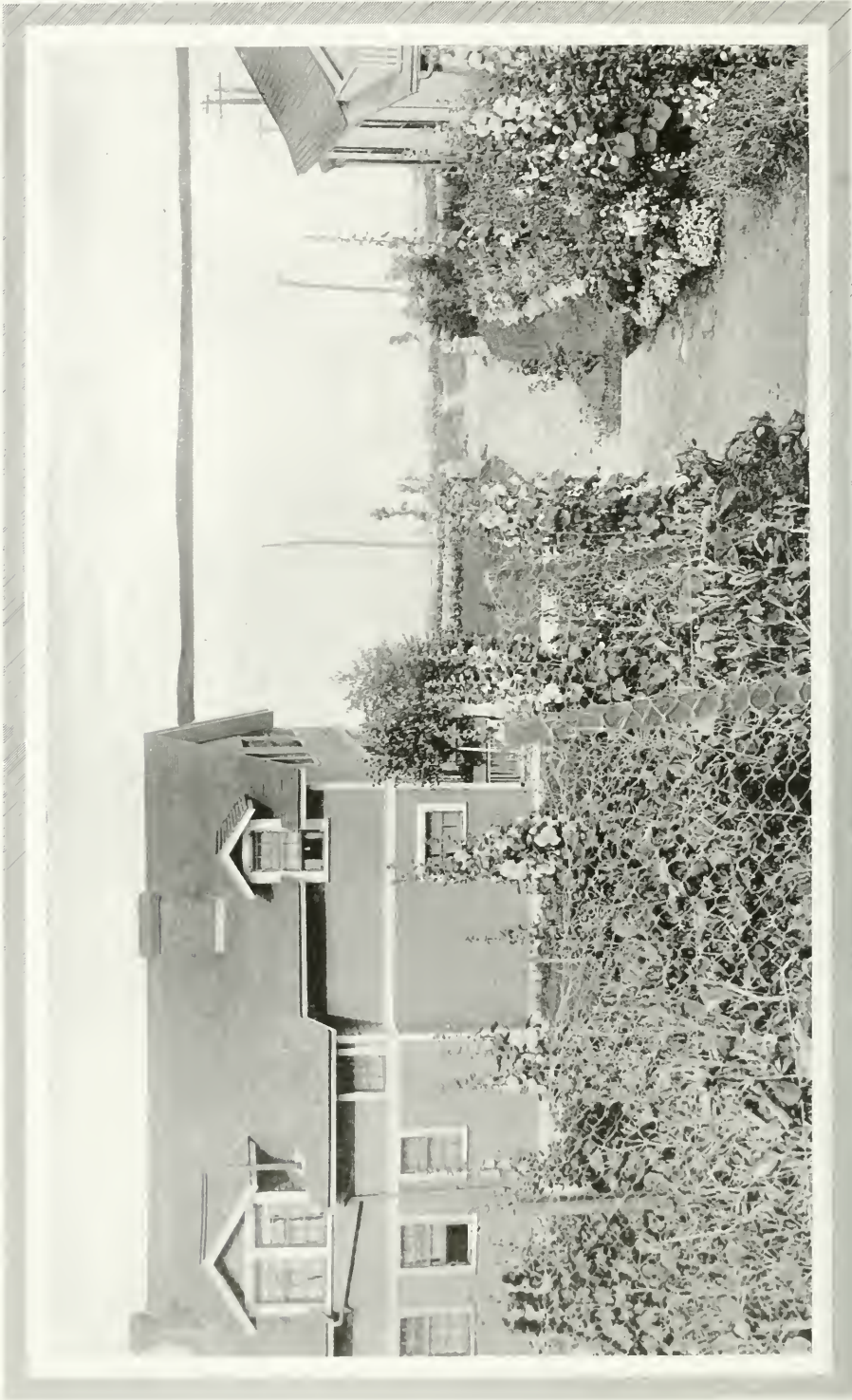
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TEMISKAMING AND NORTHERN ONTARIO
RAILWAY COMMISSION,

J. L. ENGLEHART, *Chairman*.

A. J. MCGEE, *Sec-Treasurer*.

(Seal)



Picturesque Haileybury.

MEMORANDUM OF AGREEMENT made this 30th day of May, in the year of our Lord one thousand nine hundred and twelve.

BETWEEN :

THE ALGOMA STEEL COMPANY, LIMITED, hereinafter called the Contractor,

and

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, hereinafter called the Commission.

WITNESSETH :

1. The Contractor agrees to furnish and deliver to the Commission free on board cars on the tracks of the Commission's railway at North Bay, as hereinafter specified, 3,640 gross tons of 60-pound steel rails, and 1,510 tons of 80-pound steel rails in strict compliance with the specifications hereto attached relating to said 60-pound and 80-pound rails respectively, for the price of \$34.00 per gross ton of 2,240 pounds f.o.b. cars at North Bay.

2. The said steel rails shall be so delivered between the first day of June and thirty-first day of July, 1912, time being agreed to be strictly of the essence of this contract.

3. In the event of stoppage or partial stoppage of the works of the Contractor or of shipments being delayed through strikes, accidents, breakage of machinery or other cause beyond the Contractor's control (of which the Commission shall be promptly notified), or in case any shipment or any part thereof shall be lost in transit, the Contractor shall be entitled to such additional time in respect of the whole or any part of said steel rails as the Chief Engineer of the Commission for the time being shall decide and certify in writing to be fair and reasonable, having reference to the character and duration of such stoppage, delay or loss, and such Engineer shall be the sole and final judge as to the additional time to be allowed, and as to what part of said steel rails same shall extend, and his decision in every such case shall be absolutely final and binding upon both parties. The last preceding clause of these presents shall be construed so far as relates to any portion of said steel rails affected by such extension of time as if the time fixed by the Engineer were the time fixed in said clause.

4. The Contractor shall give written notice to the Commission at its Office in Toronto of the commencement of rolling at least eight days in advance of such commencement and shall similarly give written notice to the Commission at its Office in Toronto of the resuming of the work after its temporary suspension at least two clear days before such resuming.

5. The written certificate of the Inspector of the Commission provided for by said specifications certifying that the rails have been manufactured to his satisfaction in accordance with this contract, and the said specifications shall be a condition precedent to the right of the Contractor to receive and be paid the price herein agreed to be paid for the same.

6. In case default shall be made by the Contractor in delivery of any of the said rails in accordance with the terms of this contract, and the continuance of such default for thirty days, the Commission may at its option cancel this contract, but the Contractor shall nevertheless remain liable for all loss which may be

suffered by the Commission by reason of the non-completion by the Contractor of this contract; PROVIDED, HOWEVER, that credit shall be given to the Contractor notwithstanding such cancellation for the price of all rails which shall have been delivered by the Contractor in accordance with this contract and said specifications.

7. The cost of inspection provided for by the specifications shall be borne by the Commission.

8. The Commission in consideration of the premises agrees to pay in Toronto funds for each shipment of said rails upon the arrival thereof at North Bay on presentation of invoices and certificate of the Inspector of the Commission attached to each draft provided this shall not require the Commission to pay for any rails at any earlier date than the date of delivery hereby fixed.

IN WITNESS WHEREOF the said parties have caused these presents to be executed under their respective corporate seals and the hands of the proper officers in that behalf.

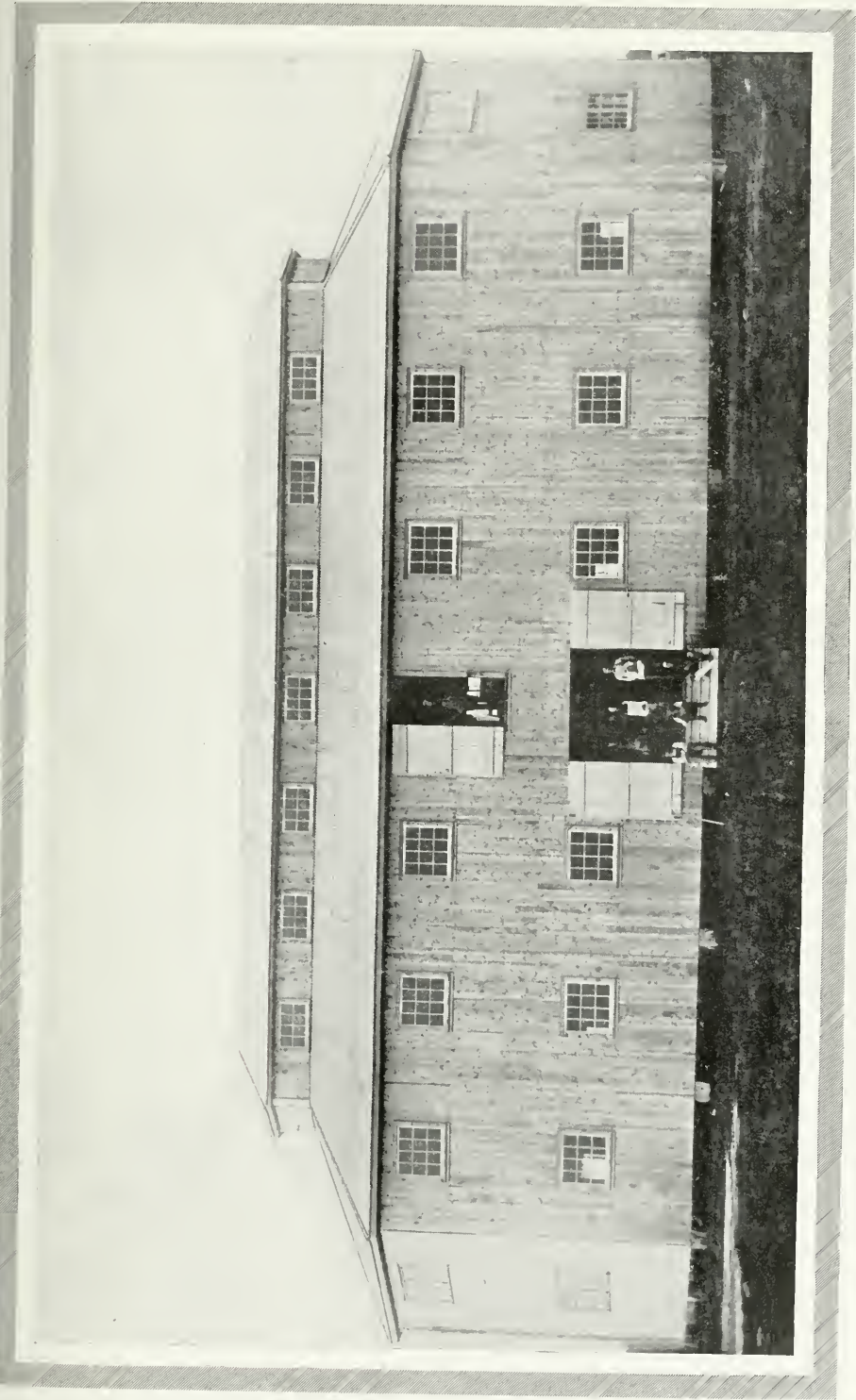
WITNESS:

JAMES HAWSON, *Asst. Sec'y.*

THE ALGOMA STEEL CORPORATION, LTD.,
JOHN MCPHERSON, *Supt. of Sales.*

J. FRATER TAYLOR, *Vice-President.*
(Seal)

TEMISKAMING AND NORTHERN ONTARIO
RAILWAY COMMISSION,
J. L. ENGLEHART, *Chairman.*
A. J. MCGEE, *Sec-Treasurer.*



Fair building at New Liskeard.

Sealed tenders invited for work other than steel bridges, necessary to complete construction of road-bed, ready for ties and rails up to section, extending from Earlton to Elk Lake.

Following tenders were received:—

P. O'Donnell, Sudbury	187,120 00
Grant, Campbell & Easton, Toronto	222,800 00
Hennessey, Murphy, Wood & Jousey, Haileybury	218,606 30
D. R. McDonald, Alexandria	198,085 00
Bourke, McGuinty & Co., North Bay	238,741 00
McCaffrey & McQuigge, Toronto	180,398 50
C. Fullerton, New Liskeard	195,567 00
Harris & McLean, Toronto	189,562 50
Sherwood & Sherwood, North Bay	187,240 00

Contract awarded to Messrs. McCaffrey & McQuigge, Toronto.

Detail prices of the different tenderers on page 210.

Agreement for grading on page 213.

AGREEMENT FOR TRACKLAYING.

ELK LAKE BRANCH.

THIS AGREEMENT made in triplicate, the 31st day of July, in the year of our Lord one thousand nine hundred and twelve.

BETWEEN:

W. A. McCaffery and C. M. McQuigge, carrying on business as Contractors, under the firm name of McCaffery & McQuigge, hereinafter called the Contractors,

and

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, hereinafter called the Commission.

WITNESSETH AS FOLLOWS:

In consideration of the covenants and agreements hereinafter contained, and to be performed by the Commission, and of the price hereinafter mentioned, the Contractors hereby COVENANT AND AGREE with the Commission as follows:—

1 In this agreement the word “work” or “works” shall, unless the context requires a different meaning, mean the whole of the work and materials, matters and things required to be done, furnished and performed by the Contractors under this agreement.

2. The words "Engineer" or "Chief Engineer" when used in this agreement, or in the specifications hereunto annexed, shall mean the Chief Engineer of the Temiskaming and Northern Ontario Railway Commission for the time being acting as such either directly or through the Assistant Chief Engineer, Division Engineer, Assistant Engineer, Resident Engineer or Inspector, having immediate charge of the work or of that portion thereof limited by the particular duties entrusted to him. All instructions and directions or certificates given, or decisions made, by anyone acting under the authority of the Chief Engineer shall be subject to his approval, and may be cancelled, altered, modified and changed as he may see fit. In all cases where the Contractors are dissatisfied with the decision of the Engineer or Inspector in immediate charge of the work, an appeal to the Chief Engineer may be made. It is declared and agreed that it shall not be in the power of the Chief Engineer or any Engineer or Inspector to waive any of the provisions of this agreement, and no waiver of any such shall on any pretence be claimed by the Contractors.

3. Whenever in this agreement it is stipulated that anything shall be done or performed by either of the parties hereto, it shall have the same effect and be construed as if the said party had thereby entered into a covenant with the other party to do or perform the same, and that any such covenant had been expressly made and entered into not only by, for or on behalf of the parties hereto respectively, but also by, for and on behalf of their respective executors, administrators, successors and assigns, as the case may be.

4. The Contractors will at their own expense furnish all and every kind of labor, tools, machinery and other plant, services and (save as herein otherwise provided) all material whatsoever necessary for the due execution and completion of, and will fully construct, perform, execute and complete in the most thorough workmanlike and substantial manner in every respect to the satisfaction and approval of the Chief Engineer the tracklaying, ballasting and other work set out in the annexed specifications in the manner and upon the terms and conditions herein set out, in strict compliance with the said annexed specifications the work of track-laying up to the Montreal River crossing to be completely finished and delivered to the Commission approved by the Chief Engineer within sixty days after the delivery to the Contractors of the steel rails for such portion at Earlton Station, and the whole of the said work to be fully completed and delivered to the Commission approved as aforesaid on or before the first day of December, 1912; PROVIDED, however, that should the work beyond the Montreal River be delayed by reason of delay in the erection of the Bridge over the Montreal River, the contractors shall be entitled to such an extension of time for the completion of the work beyond the Montreal River beyond the said first day of December as shall on the written application of the Contractors for that purpose be granted by certificate in writing of the Chief Engineer.

5. Time shall be of the essence of this agreement.

6. All of the said works shall be constructed of the best materials of their several kinds, and finished in the best and most workmanlike manner, in the manner required by and in strict conformity with the said specifications and the plans and drawings relating thereto, and the working or detail drawings which may from time to time be furnished for the guidance of the Contractors (which said specifications and drawings and the workings or detail drawings to be hereafter furnished are hereby declared to be part of this agreement), and to the complete satisfaction of the Chief Engineer.

7. The several parts of this agreement shall be taken together, to explain each other, and to make the whole consistent: and if it be found that anything has been omitted or mis-stated, which is necessary for the proper performance and completion of any part of the works herein contracted for, the Contractors shall at their own expense execute the same as though it had been inserted and properly described, and the correction of any such error or omission shall not be deemed to be an addition to or deviation from the works hereby contracted for.

8. The said work shall be commenced immediately after the execution of this agreement, and shall be proceeded with continuously and diligently and under the personal supervision of the Contractors until completed. The work shall be carried on and prosecuted in all its several parts in such a manner and at such points and places as the Chief Engineer shall from time to time direct and to his satisfaction, but always according to the provisions of this agreement and if no direction is given then in a careful, prompt and workmanlike manner according to this agreement.

9. This agreement shall not be assigned, nor shall the said work or any part thereof be sub-contracted without the written consent of the Chief Engineer to every such assignment or sub-contract.

10. The Contractors shall in all things conform to and comply with the instructions of the Chief Engineer. Every facility shall at all times be given by the Contractors to the Chief Engineer and to any Engineer or Inspector appointed by him to examine and inspect the materials provided by the Contractors, used or being used in the work and the work as done and being done, and all order of the Chief Engineer or the Engineer or Inspector as to the fitness or unfitness of the material or work shall be obeyed by the Contractors. All work and materials shall be subject to the approval of the Chief Engineer and any work or material which in the opinion of the Chief Engineer is not of the character, quality, dimensions or design required by the plans or specifications, or which is, in the judgment of the Chief Engineer, otherwise in any manner defective, imperfect or insufficient, shall be replaced or remedied when pointed out to the Contractors by the Chief Engineer and shall be made good and sufficient by the Contractors at their own expense and to the satisfaction of the Chief Engineer, who shall have the power and whose duty it shall be to have any defective work or material taken out and rebuilt, or replaced at the expense of the Contractors. Any omission by the Chief Engineer to disapprove of or reject any insufficient or imperfect work at the time of any estimate shall not be deemed an acceptance of such work or material.

11. The Chief Engineer shall be at liberty at any time either before the commencement or during the construction of the work or any portion thereof, to order any extra work to be done, and to make any change or alteration which he may deem expedient in the alignment or grade of the railway or in the dimensions, nature, location or position of the works, or of any part or parts thereof, or in any other thing connected with the works, whether or not such changes increase or diminish the work to be done or the cost of doing the same, and the Contractors shall immediately comply with all written directions of the Chief Engineer in that behalf, but the Contractors shall not make any change in or addition to or omission or deviation from the works and shall not be entitled to any payment for any change, addition, deviation or any extra work, unless such change, addition, omission, deviation or extra work shall have been first directed in writing, nor unless the price to be paid for any addition or extra work shall have been pre-

viously fixed by the Chief Engineer in writing, and the decision of the Chief Engineer as to whether any such change or deviation increases or diminishes the cost of the work, and as to the amount to be paid or deducted as the case may be in respect thereof, shall be final, and the obtaining of his decision in writing as to such amount shall be a condition precedent to the right of the Contractors to be paid therefor. If any such change or alteration shall, in the opinion of the Chief Engineer, materially affect the cost of doing the work, he shall fix or determine the price to be paid either above or below the prices hereinbefore provided to be paid for such work, as the case may be, so as to do substantial justice to both parties, and his decision as to the amount to be fixed for the price of such work shall be final.

12. All the clauses of this agreement shall apply to any changes, additions, omissions, deviations or extra work in like manner and to the same extent as to works contracted for and no changes, additions, deviations, omissions or extra work shall annul or invalidate this agreement.

13. If any change or deviation in or omission from the works be made by which the amount of work to be done shall be decreased, no compensation shall be claimable by the Contractors for any loss of anticipated profits in respect therefor.

14. All claims for extra work or material must be presented to the Chief Engineer for allowance at the end of the month in which the same shall have been done or furnished and shall, if allowed by the Chief Engineer, be included in the estimate for that month, otherwise all claims therefor shall be deemed to be absolutely waived by the Contractors and the Commission shall not be required to allow or pay for the same unless in the judgment of the Commission under the circumstances of the case it is reasonable and proper to do so.

15. The Chief Engineer shall be the sole judge of work and material in respect of both quantity and quality, and his decision on all questions in dispute with regard to work or material shall be final, and no works or extra or additional works or charges shall be deemed to have been executed, nor shall the Contractors be entitled to payment for the same unless the same shall have been executed to the satisfaction of the Chief Engineer, as evidenced by his certificate in writing, which certificate shall be a condition precedent to the right of the Contractors to be paid therefor.

16. The prices to be paid for the different kinds of work set out or referred to in the list or schedule of prices are intended to and shall include not merely the particular kind of work or materials mentioned in the said list or schedule, but also all and every kind of work, labor, tools, and plant, materials, articles and things whatsoever necessary for the full execution and completion ready for use of the respective portions of the works, to the satisfaction of the Chief Engineer. In case of dispute as to what work, labour, materials, tools and plant are or are not so included the decision of the Chief Engineer shall be final and conclusive.

17. A competent superintendent or foreman shall be kept on the ground by the Contractors during the working hours, to receive the orders of the Chief Engineer, and should the person so appointed be deemed by the Chief Engineer incompetent or conduct himself improperly he may be discharged by the Chief Engineer and another shall be at once appointed in his stead: such superintendent or foreman shall be considered as the lawful representative of the Contractors and shall have full power to carry out all requisitions and instructions of the Chief Engineer.

18. In case any materials supplied by the Contractors or other things in the opinion of the Chief Engineer which are not in accordance with the several parts of this agreement or are not sufficiently sound or are otherwise unsuitable for the respective works shall be used for or brought to the intended works or any part thereof or in case any work shall be improperly executed, the Chief Engineer may require the Contractors to remove the same and to provide proper materials or other things or to properly re-execute the work as the case may be; and thereupon the contractors shall and will immediately comply with the said requisition and if twenty-four hours shall elapse and such requisition shall not have been complied with, the Chief Engineer may cause such materials or other things or such work to be removed and in any such case the Contractors shall pay to the Commission all such damages and expenses as shall be incurred in the removal of such materials or other things or of such work or the Commission may in its discretion retain and deduct such damages and expenses from any amounts payable to the Contractors.

19. The Commission will supply and provide the ties, steel rails and track fastenings. Ties shall be delivered to the Contractors piled along the right of way of the Elk Lake branch or loaded on flat cars at Earleton at the Commission's option. The steel rails will be delivered f.o.b. cars at Earleton Station and the Contractors shall pay all demurrage on cars. The track fastenings have already been delivered unloaded by the Commission at Earleton Station grounds and are to be treated as thereby delivered to the Contractors. The Contractor shall prior to the said line or any part thereof being taken over by the Commission carry over said line for the Commission all employees of the Commission or persons engaged upon the Commission's business and all construction material or other freight of the Commission at the following rates, namely: one cent per mile per passenger and one-half cent per ton per mile for construction material or freight.

20. In case the Contractors shall make default or delay in diligently continuing to execute or advance the works to the satisfaction of the Chief Engineer and such default or delay shall continue for six days after notice in writing shall have been given by the Chief Engineer to the Contractors, requiring them to put an end to such default or delay, or in case the Contractors shall become insolvent or make an assignment for the benefit of creditors, or neglect either personally or by a skillful and competent agent to superintend the works or if any winding-up order is made against the Contractors under the provisions of the Winding-Up Act or any Act of a similar character applicable to the Contractors or in case the Contractors do not give access to and allow inspection of and the making of extracts from pay-rolls, books and vouchers from time to time to the Chief Engineer or the Commission or to any person or persons from time to time instructed by the Chief Engineer or by the Commission in that behalf so that the said Chief Engineer may satisfy himself of the due observance by the Contractors, and by all sub-contractors of all the provisions of this contract, and especially of the provisions of clause 28 hereof, and that the Commission may satisfy itself from time to time of the due observance by the Contractors and by all sub-contractors of the provisions of clause 29 of this contract, or if the Contractors or any sub-contractors are in the opinion of the Chief Engineer, who shall be the sole and final judge thereof, guilty of any violation of any of the provisions of clause 28 hereof, or if the Contractors or any sub-contractors are in the opinion of the Commission who shall be the sole and final

judge thereof, guilty of any violation of any of the provisions of Clause 29 hereof, then in any of such cases the Commission may take the work out of the hands of the Contractors and employ such means as it may see fit to complete the work, and the Contractors shall have no claim for damages or for any further payment in respect of the work performed, but shall, nevertheless, remain liable for all loss or damage which may be suffered by reason of the non-completion by him of the works; and all materials and things whatsoever and all machinery and other plant provided by them for the purposes of the works, shall remain and be considered as the property of the Commission for the purposes and according to the provisions and conditions contained in paragraph 22 hereof.

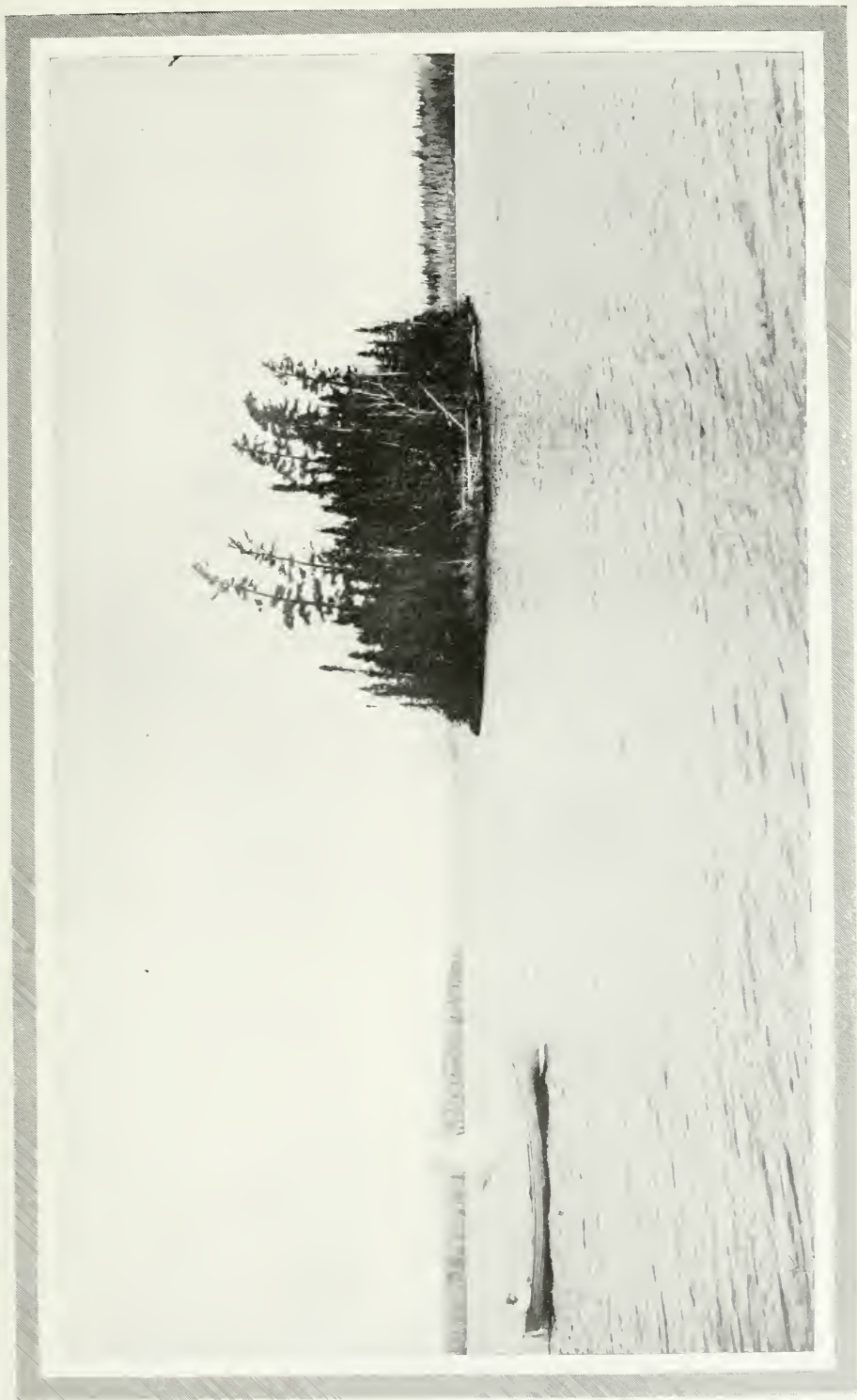
21. If the work to be done under this agreement shall be abandoned, or be assigned by the Contractors without the consent of the Commission, or if the Contractors shall lose control of the work for any cause, excepting the acts of God, or of the public enemy, or if at any time the Chief Engineer shall be of the opinion and shall so certify in writing to the Commission that the Contractors are wilfully and persistently violating any of the conditions or covenants of this agreement, or are not executing said works in good faith, the Commission may take the work out of the hands of the Contractors and may employ such means as it may see fit to complete the work, and all the provisions of section 20 of the agreement shall thereupon apply and the Commission shall have in regard to the said work all the powers therein provided.

22. If the Chief Engineer shall at any time consider that the number of workmen or quantity of machinery or other plant, or the quantity of proper materials respectively employed, provided or supplied by the Contractors on or for the said works is insufficient for the advancement thereof towards completion within the limited time, or that the works are or some part thereof is not being carried on with due diligence then and in every such case the Chief Engineer may, by written notice to the Contractors require them to employ or provide such additional workmen, machinery or other plant or materials as the Chief Engineer may think necessary and in case the Contractors shall not thereupon within seven days or such other longer period as may be fixed by any such notice, in all respects comply therewith, then the Chief Engineer may, either on behalf of the Commission, or if he sees fit may as the agent of and on account of the Contractors, but in either case at the expense of the Contractors, provide and employ such additional workmen, machinery and other plant or any portion thereof, or such additional materials respectively as he may think proper and may pay such additional workmen such wages and for such additional machinery or other plant and materials respectively, such prices as he may think proper and all such wages and prices respectively, shall thereupon at once be repaid by the contractors or the same may be retained and deducted out of any sum that may then or thereafter be or become due from the Commission to the Contractors, and the Commission may use in the execution or advancement of the said works not only the machinery and other plant and materials so in any case provided by anyone on its behalf, but also all such as may have been or may be provided by or on behalf of the said Contractors.

23. The Commission shall have the right to suspend operations from time to time at any particular point or points or upon the whole of the work, or to direct that the force employed on the work shall be diminished and the Contractors upon being requested in writing so to do by the Commission shall stop the work or reduce the force as the case may be, in accordance with such written



On Lake Sesokinika.



On Lake Seseimika.

request, and the Contractors shall have no claim for damage by reason thereof. Such writing shall be signed by the Chief Engineer and delivered to the Contractors or to some person on the work representing the Contractors at least three days previous to such stoppage of work or reduction of force.

24. The Contractors shall not have nor make any claim or demand or bring any action against the Commission for any damage which they may sustain by reason of any delay in the progress of the work, arising from the acts of any of the Commission's agents, and it is agreed that in the event of any such delay the Contractors shall have such further time for the completion of the works as may be fixed in that behalf by the Chief Engineer.

25. No delay within or beyond the period herein specified for completing the said work shall vitiate or void this agreement or any part thereof, or the obligation hereby imposed upon the Contractors or shall make void or in anywise impair or affect any current or other bond or security for the performance of this agreement, and all the covenants and agreements in this agreement and in the said specifications contained shall apply to this agreement and to the said work until the said work is finally completed and accepted, notwithstanding the fact that such work is not completed within the time specified herein for such completion.

26. The Contractors shall be at the risk of and shall bear all loss or damage whatsoever from whatsoever cause arising which may occur to the works or any of them until the same shall be fully and finally completed and delivered up to and accepted by the Commission; and if any such loss or damage shall occur before such final completion, delivery and acceptance, the Contractors shall immediately at their own expense repair, restore and re-execute the work so damaged.

27. The Contractors and their agents, laborers and all others employed by them or under their control shall use due care that no person or property is injured or any rights infringed in the prosecution of the said work, and the Contractors shall be responsible for and will pay all damages claimable by any person or corporation whatsoever in respect of any injury to persons or property or in respect of any infringement of any right whatsoever, including damage by fire, occasioned in their carrying on of the said works or by any neglect or misfeasance or nonfeasance on their part or on the part of their servants or employees, and shall and will at their own expense make such temporary provisions as may be necessary for the protection of persons and of lands, buildings, animals or other property or to prevent the interruption of the traffic on any private or public road, or for the uninterrupted enjoyment of all rights of persons or corporations in and during the performance of the said works.

28. In case any sum due for the labor of any foreman, workman or laborer or for the use of any plant employed upon or in respect of the said works or any of them or the price of any materials or supplies purchased for account of the Contractors for the said work remains unpaid, the Chief Engineer shall notify the Contractors to pay such sum and if two days elapse and the same be not paid, the Commission may pay such sum and the Contractors covenant with the Commission to repay at once any and every sum so paid and if the Contractors do not repay the same within two days the Commission may deduct the amount or amounts so paid by it from any sum that may then or may thereafter be or become due by the Commission to the Contractors.

29. The Contractors shall in connection with the whole of the said work, as far as practicable, use only material, machinery, plant, supplies and rolling stock

manufactured or produced in Canada, provided same can be obtained as cheaply and upon as good terms in Canada as elsewhere, having regard to quality and price, and shall not at any time in connection with the construction of the said railway or works or any other matter arising out of or connected with this contract employ any person or persons in contravention of "The Alien Labor Act" or the provisions of "The Railway Act of Ontario" respecting the employment of alien labor and shall pay to all workmen, laborers and other servants employed in or about the construction of the said railway and works and every other matter arising out of or connected with this contract such rates of wages as may be currently payable to workmen, laborers and servants engaged in similar occupations in the district in which such railway and works are to be constructed, and shall be responsible for the observance by all sub-contractors on their part of the provisions of this clause. And in the event of the Commission who shall be sole absolute and final judge of such matters being satisfied at any time that the Contractors or any sub-contractors have been guilty of any violation of any of the provisions of this clause, the Commission shall have the right from time to time and as often as it shall be satisfied that any such violation has taken place to withhold all payments from the Contractors until such violation of any of the provisions of this clause shall in the opinion of the Commission have ceased, and until such amends as the Commission may require shall have been made for all such violations, and on being notified by the Commission of such violation, it shall be the duty of the Chief Engineer to withhold all certificates from the Contractors until the Commission shall be satisfied that such violation has ceased and until amends shall have been made to the satisfaction of the Commission as aforesaid.

30. The Contractors hereby authorize and empower the Commission or its solicitors to defend, settle or compromise any action or suit claim, lien or demand which may be brought against the Commission for or by reason of any act or default of the Contractors as the Commission or its Solicitors may deem expedient, and the Contractors hereby agree to ratify and confirm all the said act of the Commission or its Solicitors in that behalf, and to pay to the said Solicitors on demand their reasonable costs of defending such suits or claims as they may deem it expedient to defend, and that such costs, together with any damages so settled or agreed upon by the Commission or its Solicitors and any claimant or the amount of any judgment recovered against the Commission in the premises will forthwith upon the same being ascertained be paid by the Contractors, and in default of their paying the said damages and costs or any portion thereof on demand, the same may be deducted from any moneys payable by the Commission to the Contractors on any account whatever, and the balance thereof if any may be recovered from the Contractors as money paid to their use.

31. The Contractors shall not bring nor permit to be brought anywhere on or near the said work any spirituous or intoxicating liquors, and if any foreman, laborer or other employee of the Contractors shall in the opinion of the Chief Engineer be intemperate, disorderly, incompetent, wilfully negligent or dishonest in the performance of his duties, he shall on the direction of the Chief Engineer be forthwith discharged, and the Contractors shall not employ or permit to remain upon the work any person who shall have been discharged from the said work for any or all of the said causes.

32. In consideration of the faithful performance by the Contractors of all and singular the covenants and agreements herein contained the Commission here-

by covenants and agrees with the Contractors that it will well and truly pay them on the full completion by them of all the work to be done under this agreement in the manner and within the time herein specified and limited for the completion thereof to the satisfaction of and subject to acceptance by the Chief Engineer, and subject also as herein provided, the following sums and prices, namely:

Description of work.	Measure.	Rate.
Track-laying	per mile	\$575.00
Ballasting and trainfilling	per cu. yd.	.45
Overhaul on ballast and trestle filling material hailed more than 10 miles, in respect of such excess over 10 miles, provided there shall be no allowance for overhaul on trestle-filling material used east of the Montreal River crossing	per cu. yd. per mile	.01
Temporary trestle timber—caps, stringers and poles	per lineal ft.	.36
Bracing	per lineal ft.	.12
Laying turn-outs complete	each	\$30 00

33. Approximate estimates of the work done, made up from returns of progress measurements and computed at the prices determined or agreed upon under the provisions of this agreement are to be made by the Engineer at the end of each calendar month, and on or about the twentieth day of the next ensuing month, payments equal to about ninety per cent. of the value of the work done, as shown by such approximate monthly estimate shall be made to the Contractor upon presentation of the written certificate of the Chief Engineer that the work for or on account of which the certificate is granted has been duly performed and executed to his satisfaction and stating the value of such work computed as mentioned and upon the approval of such certificate by the Commission and the said certificate and such approval thereto shall be a condition precedent to the right of the Contractors to be paid the said ninety per cent. or any part thereof. The remaining ten per cent. shall be retained by the Commission until the final completion of the whole work as an additional security for the performance of this agreement by the Contractors and when in the opinion of the Chief Engineer this agreement has been completely performed in accordance with the provisions thereof, and when until the Chief Engineer shall be satisfied that all wages of all workmen, laborers and servants of the Contractors and of all sub-contractors under them, as well as the price of all materials and supplies made, procured or provided for the Contractors or for any of the sub-contractors have been duly paid, he shall certify the same accordingly in writing, under his hand, with a final estimate of the work done by the Contractors and with a statement of the amount due and unpaid and within two months after the granting of such certificate the amount so found due and unpaid shall be paid to the Contractors upon delivery to the Commission of a good and valid release and discharge of, and from any and all claims and demands for and in respect of all matters and things growing out of or connected with this agreement or the subject matter thereof. The written certificate of the Chief Engineer certifying to the final completion of the work to his entire satisfaction and of the evidence called for by this clause having been furnished to him shall be a condition precedent to the right of the Contractors to receive or be paid the amount certified by the Chief Engineer as due and unpaid or any part thereof and the certificate of the Chief Engineer shall be conclusive as to the amount to be paid to the Contractors.

34. It is intended that every allowance to which the Contractor is fairly entitled will be embraced in the Chief Engineer's monthly certificates; but should the Contractor at any time have claims of any description which he considers are not included in the progress certificates, it will be necessary for him to make and repeat such claims in writing to the Chief Engineer within thirty days after the date of the despatch to the Contractors of each and every certificate in which he alleges such claims to have been omitted.

35. The Contractors in presenting claims of the kind referred to in the last preceding paragraph must accompany them with satisfactory evidence of their accuracy and the reason why they think they should be allowed. Unless such claims are thus made during the progress of the work within thirty days as in the preceding clause and repeated in writing every month until finally adjusted or rejected the Contractors shall have no claim upon the Commission in respect thereof.

36. The progress measurements and progress certificates shall not in any respect be taken as binding upon the Commission or the Chief Engineer or as final measurements or as fixing final amounts; they are to be subject to the revision of the Chief Engineer in making up his final certificate, and they shall not in any respect be taken as an acceptance of the work or release of the Contractors from responsibility in respect thereof, but he shall at the conclusion of the work deliver over the same in good order, according to the true intent and meaning of this agreement.

37. At the request of the Contractors the Commission will supply for use on said work such rolling stock and plant as the Commission can conveniently spare for that purpose, for which the Contractors shall pay the following clear rentals:

For eight-wheeled engines, ten dollars per day for each engine.

For ten-wheeled engines fifteen dollars per day for each engine.

For steam shovels five dollars per day each.

For ballast cars thirty-five cents per day each.

For ballast plows fifty cents per day each.

For ledger-wood three dollars and fifty cents per day each; the time to be reckoned from the day each engine, shovel, car, plow and ledger-wood is delivered to the Contractors at Earlton Station to the time same are respectively returned to the Commission at the said station, or at such other point on the Elk Lake extension of the Railway of the Commission as may be required by the Chief Engineer and to include each day of twenty-four hours, between the day of delivery and the date of return as aforesaid; such rental to be payable in cash monthly on the fifteenth day of each month with full right and authority to the Commission to deduct from any sum payable to the Contractors from time to time under progress certificates or otherwise.

38. Subject to the provisions of Clause 19 hereof the Contractors covenant and agree with the Commission that the said plant and rolling stock will be used only in connection with the ballasting and trestle-filling of the said line of railway and that they will return all of said plant and rolling stock in the same plight and condition as same shall be when received by them (ordinary wear and tear only excepted) to the Commission immediately on their ceasing to use same respectively, or at such earlier date with reference to each of said articles as the Chief Engineer may with respect to same respectively demand or require the same to be returned, and will deliver the same on the Commission's

track at Earleton or at such other point or points on the Elk Lake Branch of the said Railway as may from time to time be indicated by the said Chief Engineer for that purpose; and it is expressly agreed that the decision of the said Engineer as to the condition of said engines, shovels, cars, plows and ledger-wood upon their return respectively, and as to the amount of damage if any in excess of ordinary wear and damage which same shall have suffered, shall be absolutely final, binding and conclusive upon the parties, and that any amounts found due by the Contractors to the Commission in respect of any such damage by the Engineer's certificate, shall be forthwith payable in cash by the Contractors to the Commission and that the Commission shall further have the right to deduct same from any moneys payable to the Contractors under said contract whether under progress certificates or otherwise.

39. In order to prevent disputes or misunderstandings between the parties hereto in relation to any of the stipulations and provisions contained in this agreement, the interpretation of or the true intent and meaning thereof, or the manner of performance thereof, or of any part thereof, by either of the said parties and for the speedy settlement of such as may occur, the Chief Engineer shall be and is hereby made, constituted and appointed sole umpire to decide all such questions and matters, including any arising regarding the amount and quantity, character and kind of work performed and material (furnished by the Contractors and all extra work and material). It is expressly declared and agreed that the Chief Engineer shall be entitled, from time to time, in reference to any or all matters, whether of interpretation or otherwise, arising from this contract or the said specifications or plans or relating in any manner to said work, to take legal or other professional advice to such extent as to him shall seem proper, including consultation with and accepting advice or assistance from any consulting Engineer employed by the Commission, whether such Consulting Engineer shall or shall not be a member of the Commission. The decisions of the Chief Engineer which may from time to time be given on all questions in dispute shall be final, binding and conclusive upon both parties hereto, and no decision or certificate given by the Chief Engineer shall be questioned or set aside by either party hereto on account of any legal defect therein or on account of any informality, omission, delay or error in proceeding in or about the same or upon any other ground, or for any other reason, or upon any pretence, suggestion, charge or imputation of fraud or collusion or confederacy, and no objection shall be raised to any decision of the Chief Engineer in the premises or to any certificate given by him on the ground that he is in the employ of either party and is acting for or in the interest of such party or on pretence that by reason of any order or statement he may have made during the progress of the work he has disqualified himself to act between the parties hereto as above provided in all matters which may arise as aforesaid but actual fraud only shall disqualify the Chief Engineer from acting as aforesaid, and the parties hereto covenant and agree each with the other to accept each and all such decisions and abide by the same as final and conclusive.

40. The Contractors will protect and will not remove or destroy or permit to be removed or destroyed the stakes, buoys and other marks placed on or about the said works by any Engineer of the works, and shall furnish the necessary assistance to correct or replace any stake or mark which through any cause may have been removed or destroyed.

41. The Commission shall have power at any time to enter upon the said works to execute any work or works not included in this agreement and the Con-

tractors shall afford all such reasonable facilities for doing such work as the Chief Engineer shall direct or require.

42. Any notice or other communication mentioned in this agreement to be notified or given to the Contractors shall be deemed to be well and sufficiently notified or given if the same be left at the Contractor's office or mailed in any Post Office to the Contractors or foreman addressed to the address mentioned in this agreement, or to the Contractors' last known place of business.

43. All mechanics, laborers or other persons who perform labor in the construction of the works hereby contracted for shall be paid such wages as are generally accepted as current for competent workmen in the district in which the work is being performed, and if there is no current rate in such district then a fair and reasonable rate, and in the event of a dispute arising as to what is the current or a fair and reasonable rate, it shall be determined by the Commission whose decision shall be final.

44. All the works carried on under this agreement shall be subject to the provisions of any Act respecting the preservation of health on public works and to all regulations made or to be hereafter made pursuant to any such Act or by any other lawful authority, and applicable to such works, and to any regulations which may be adopted by the Commission in reference to sanitation or the preservation of health on the said work or any part thereof.

45. The Contractors shall observe and comply with all regulations made by any lawful authority and with all regulations of the Commission and instructions from the Chief Engineer from time to time made or given with reference to the prevention and extinguishing of fires, and shall pay all wages and other outlay occasioned by such regulations and instructions.

46. It is distinctly declared that no implied contract of any kind whatsoever by or on behalf of the Commission shall arise or be implied from anything contained in this contract including the said specifications, tender, plans and drawings or from any position or situation of the parties at any time, it being clearly understood and agreed that the express contracts, covenants, agreements and stipulations upon which any rights against the Commission are to be founded and it being further expressly agreed that in case of any discrepancy between these presents and anything contained in the said specifications the provisions of these presents shall govern. In case of any discrepancy appearing at any time between the specifications, profiles, plans, drawings and detailed drawings or any of them the Contractors shall follow such one of them as the Chief Engineer shall in writing direct.

IN WITNESS WHEREOF the parties hereto have herewith caused these presents to be signed and sealed on the day and year above written.

SIGNED, SEALED AND DELIVERED,

by the Contractors, in the presence of

J. T. STUART.

W. A. McCaffrey.

(Seal)

C. McQuigge.

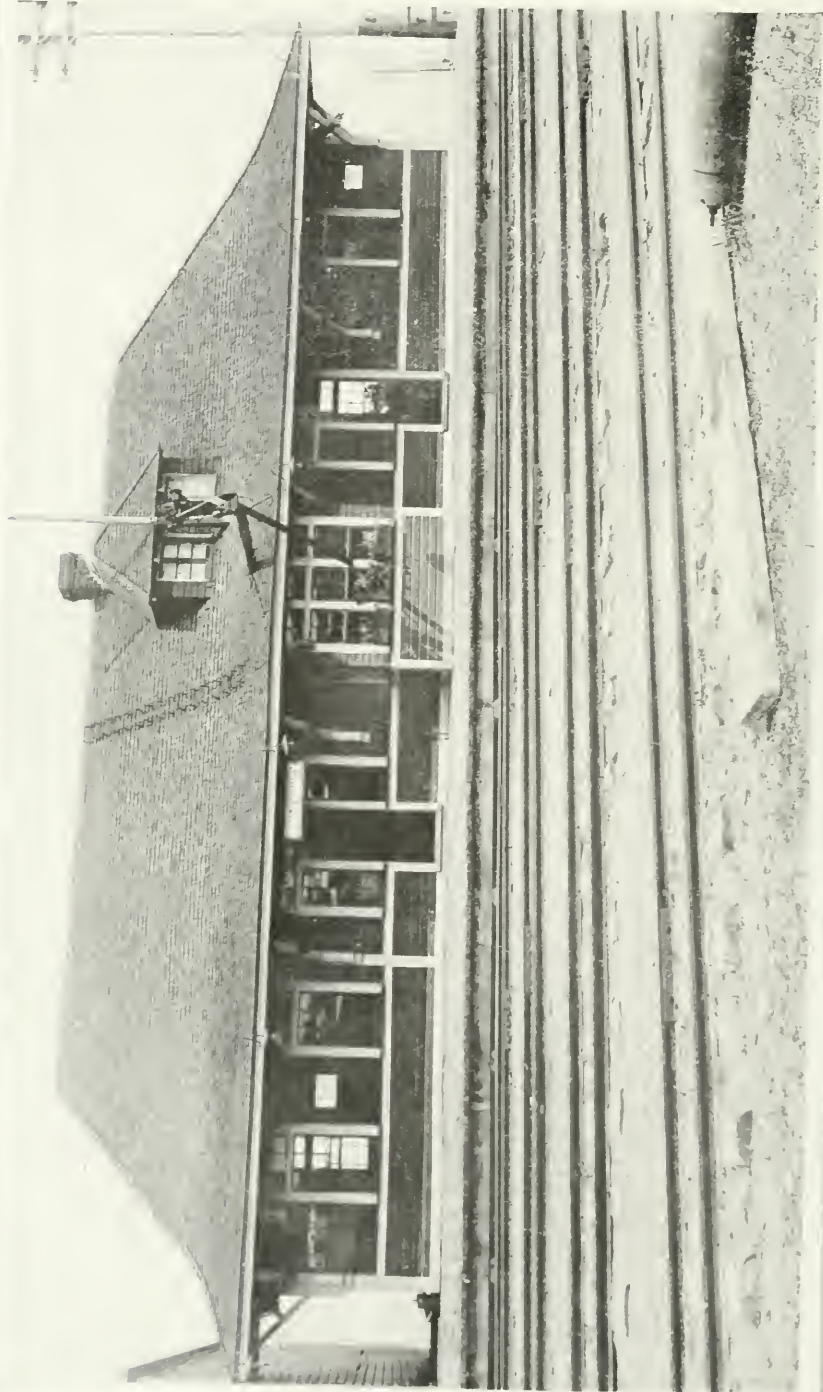
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TEMISKAMING AND NORTHERN ONTARIO
RAILWAY COMMISSION.

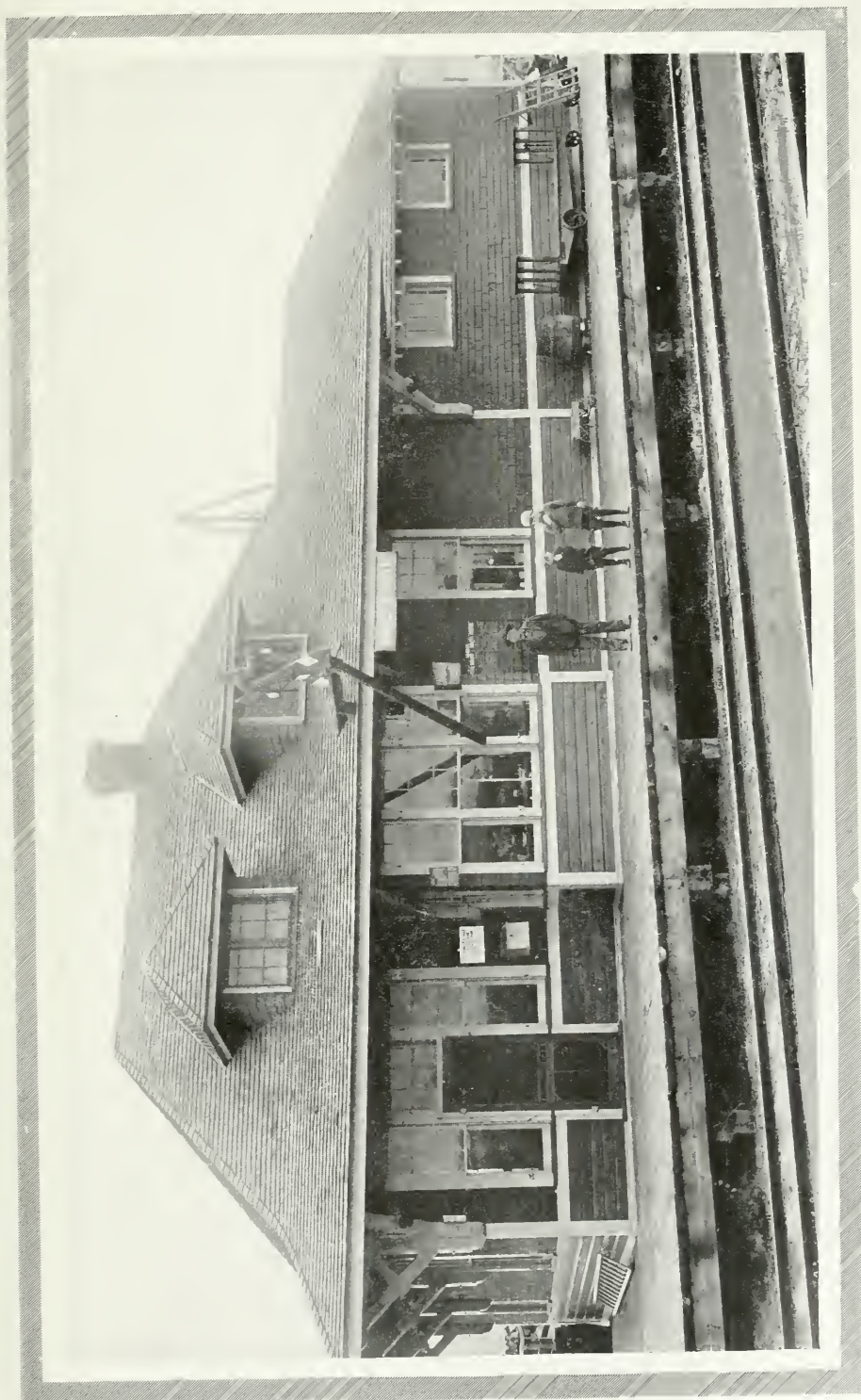
(Seal)

J. L. Englehart, *Chairman*.

A. J. McGee, *Sec-Treas.*



Haileybury Station.



Uno Park Station.

Tenders for Elk Lake Extension—Continued

		McCauley & McQuigge, Toronto.	C. Fullerton, New Liskeard.	Harris McLean, Toronto.	Sherwood & Sherwood, North Bay.	Average.
		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
420 acres ..	Cleaning	40 00	16,800 00	50 00	35 00	45 00
75	Close Cutting	20 00	1,500 00	35 00	22 00	37 44
75	Grubbing	100 00	7,500 00	125 00	100 00	122 22
1,000 cu. yds.	Solid Rock	1 60	1,600 00	1 70	1 70	1 68
340,000 ..	Common Excavation	31	105,400 00	31	32	35
300 Squares	Cross Logging	3 00	900 00	3 00	10 00	4 57
300 M.	Timber trestle built in	52 00	15,600 00	55 00	50 00	55 22
140 M.	Culvert Timber built in	35 00	4,900 00	45 00	30 00	35 55
28,000 Lin. Ft.	Piling driven	35	9,800 00	30	40	37
50 cu. yds.	Concrete—1—2—4	15 00	750 00	12 00	16 00	13 22
1,200 ..	Concrete—1—3—5	12 00	14,400 00	11 00	15 00	11 55
200 ..	Rip Rap	3 00	600 00	4 00	3 00	3 97
300 Lin. Ft.	Corrugated Pipe Culverts—18 in.	60	180 00	2 00	15	54
350 ..	.. ..	70	245 00	2 75	20	67
120 ..	.. ..	80	96 00	3 75	25	85
150 ..	.. ..	85	127 50	5 00	30	1 17
		180,398 50	195,567 00	189,562 50	187,340 00	



Junction at Iroquois Falls.

THE
TEMISKAMING and NORTHERN
ONTARIO RAILWAY
COMMISSION

FORMS
OF
Advertisement
Instructions to Bidders
Tender
General Specifications
Contract
Grading Elk Lake Branch

McCAFFREY AND McQUIGGE,
CONTRACTORS.

NOTICE TO CONTRACTORS.

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION.

Toronto, February 24th, 1912.

SEALED TENDERS for the works (other than steel bridges) necessary to the complete construction of the roadbed ready for the ties and rails upon that section of the TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION'S Railway extending from Earlton to Elk Lake, will be received at the office of the Secretary of the Commission, 25 Toronto Street, Toronto, until twelve o'clock (noon) on the twentieth day of March, 1912.

On receipt of a request in writing, a copy of each of the following documents:—

Instructions to Bidders;
Form of Tender;
Specifications;
Form of Contract;

will be furnished to intending bidders at the office of the Secretary of the Commission, Toronto; or at the office of the Chief Engineer of the Commission, North Bay, where plans and profiles pertaining to the work may also be seen.

The right is reserved to reject any or all bids.

(Signed) A. J. MCGEE,

Secretary, Temiskaming and Northern Ontario Railway Commission.

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION.

INSTRUCTIONS TO BIDDERS.

1. Parties submitting tenders are required to use the blanks prepared and furnished by the Commission for that purpose, and are understood to accept and agree to be bound by the terms and conditions contained and set forth herein and in the forms of contract, specifications, etc., annexed to the form of tender furnished by the Commission.

TENDERS TO BE IN DUPLICATE—FORMS MUST BE KEPT INTACT.

2. All tenders must be in duplicate, enclosed in a sealed envelope marked "TENDER FOR GRADING," addressed to A. J. McGee, Secretary Temiskaming and Northern Ontario Railway Commission, 25 Toronto Street, Toronto; and no tender will be received if detached from the other forms with which it is bound: the entire package must be delivered unbroken and in good order, complete in all respects.

UNBALANCED TENDER MAY BE REJECTED.

3. Any tender in which the prices stated for the several items are unbalanced may be rejected.

ESTIMATE OF QUANTITIES.

4. Tenders will be compared on the basis of the Chief Engineer's estimate of approximate quantities of work to be done and materials to be furnished, as shown in Schedule "A" hereto attached.

ESTIMATE IS APPROXIMATE.

5. The quantities shown in said Schedule, though intended to be stated with as much accuracy as is possible in advance, are only approximate, and given for the purpose of comparison and shall not be binding upon the Commission.

PERSONAL EXAMINATION BY BIDDERS.

6. Tenders will be received by the Commission upon the following express conditions, which shall apply to and become part of every tender received:

(a) Bidders shall not be in any way entitled to rely upon the classification, statement of quantities, or any other information given by said Schedule "A" or in any other manner by the Chief Engineer, or by any other person on behalf of the Commission, save and except that given by the plans, profiles, drawings and specifications exhibited by the Chief Engineer.

(b) Before submitting any tenders, bidders should make a careful examination of the plans, profiles, drawings and specifications, read the form of Contract to be executed, and fully inform themselves as to the quantity and quality of the materials and character of the workmanship required.

(c) Bidders must determine the quantities for themselves and should visit the locality where the work is to be done, make a careful examination of the places where materials are to be delivered or procured, and satisfy themselves by personal examination and by any other means which they may adopt as to the location of the proposed works, the quantities, classifications, nature and extent of the work to be performed according to the plans and specifications, and as to all other facts material for the purpose of determining the character and cost of the work.

ADDITIONS, OMISSIONS AND ALTERATIONS.

7. Attention is called to the clauses of the contract giving power to the Commission's Engineer to order extra work to be done and to make any additions to, omissions from, changes or alterations in the alignment or grade of the railway, or in the dimensions, nature, location or position of the work. Attention is also called to the clauses in the specifications defining classifications: "Trestle timber built in," "Trestle timber delivered," "Culvert timber built in," "Culvert timber delivered," "Piling driven," "Piling delivered."

QUALIFICATION OF BIDDERS.

8. Bidders must satisfy the Commission of their ability to furnish the materials and perform the work for which they tender.

SECURITY FOR EXECUTION OF CONTRACT.

9. Each tender must be signed and sealed by all the parties to the tender and witnessed and be accompanied by an accepted cheque on a chartered bank of the Dominion of Canada payable to the Commission for an amount equal to three per centum of the estimated total cost of the work contemplated by such tender. Any party whose tender is accepted shall, within ten days after the acceptance thereof execute the contract by signing the same and the specifications and other documents required by the Commission, and furnish security as hereinafter provided, and upon delivering to the Commission the said executed contract and furnishing such security, such certified cheque shall be returned to the bidder. In case of refusal or failure on the part of the party whose tender is accepted to complete and execute the contract with the Commission and to furnish the approved security within ten days after the acceptance of the tender, the said cheque shall be forfeited to the Commission as liquidated damages for such refusal or failure, and all contract rights acquired by the acceptance of the tender shall be forfeited, and all obligations arising by reason of such acceptance, refusal or failure as aforesaid, shall be released and mutually rescinded. Cheques deposited by parties whose tenders are rejected will be returned within ten days after rejection.

SECURITY FOR PERFORMANCE OF CONTRACT.

10. The security required for the faithful performance of the contract shall be furnished when the contract is executed and will be for an amount not less than ten per cent. of the estimated total cost of the work contemplated by the contract, based upon the approximate quantities shown in said Schedule "A" and the right is reserved to the Commission to require after tenders are opened that such security shall be for an amount not exceeding one third (1-3) of such total estimated cost.

FORMALITIES TO BE OBSERVED BY BIDDERS.

11. (a) *Name, Residence and Address*—The place of residence of each person tendering, with Post Office address, must be given after his signature, which must be written in full.

(b) *Signature*—All signatures must be witnessed.

(c) *Partnership Tenders*—When a firm tenders, the individual names in full and addresses of each of the members shall be set out in the body of the tender, and the tender shall be signed by each member individually; but the signers may, if they choose, describe themselves in addition as doing business under a given name and style as a firm.

(d) *Tenders by Companies*—In cases where an incorporated Company submits a tender, the corporate seal of the Company must be affixed thereto, and it must be signed by each officer, whose signature is necessary to render a contract binding upon such Company. The address of the Head Office of the Company shall also be stated in the tender.

(e) *Tenders by Agents*—Anyone signing a tender as an agent of another, or of others, must file with such tender legal evidence of his authority to do so.

RIGHT TO REJECT TENDERS RESERVED.

12. The right to reject any and all tenders is reserved by the Commission.

TIME FOR RECEIVING TENDERS.

13. Tenders will be received at the office of the Secretary, 25 Toronto Street, up to twelve o'clock (noon) on the twentieth day of March, 1912, and no tender received thereafter will be considered.

FORMALITIES UPON EXECUTION OF CONTRACT.

14. As a rule the Commission will require that all the parties to a contract, including sureties, shall attend personally and execute the contract and other documents at the office of the Commission. In case of the acceptance of a tender submitted by a partnership, the contract and such other documents as the Commission may require to be signed shall be signed by each member of the firm individually. Contracts to which incorporated companies are parties shall be executed under the corporate seal of the Company and be signed by each officer, whose signature is necessary to render a Contract binding upon the Company.

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY
COMMISSION.

SCHEDULE "A."

APPROXIMATE ESTIMATE OF WORK TO BE DONE AND MATERIALS TO BE FURNISHED ON THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY, EARLTON TO ELK LAKE.

Description of Work.		Quantity.
Clearing	per acre	420.0 acres
Close Cutting.....	per acre	75.0 "
Grubbing.....	per acre	75.0 "
Solid Rock	per cu. yd.	1,000 cu. yds.
Loose rock.....	per cu. yd.	
Common excavation.....	per cu. yard	340,000 cu. yds.
Overhaul, all materials, per cu. yard per 100 feet, over 500 feet, free haul...		
Cross logging, 1 foot deep, with 18 inches brush work....	per 100 square feet	300 squares
Telegraph Poles cut on right-of-way	each	
Fence Posts cut on right-of-way	each	
Ties cut on right-of-way	each	
Timber cut on right-of-way	per 1,000 ft. B.M.	
Trestle timber built in.....	per 1,000 ft. B.M.	300 M.
Trestle timber delivered	per 1,000 ft. B.M.	
Culvert timber, built in	per 1,000 ft. B.M.	140 M.
Culvert timber, delivered	per 1,000 ft. B.M.	
Piling, driven	per lineal foot	28,000 lin. ft.
Piling, delivered.....	per lineal foot	
Concrete, 1:2:4	per cubic yard	50 cu. yds.
Concrete, 1:3:5	per cubic yard	1,200 "
Rip-rap, hand laid.....	per cubic yard	200 "
Paving	per cubic yard	
Corrugated Pipe Culverts: (laying) per lineal foot.....		
12 inches diameter.....	" "	
18 " "	" "	300 lin. ft.
24 " "	" "	350 "
30 " "	" "	120 "
36 " "	" "	150 "

TEMISKAMING AND NORTHERN ONTARIO RAILWAY
COMMISSION.

FORM OF TENDER.

To
*The Secretary-Treasurer of the
Temiskaming and Northern Ontario Railway Commission.*
TORONTO, ONT.

SIR,—I (or We), McCaffrey & McQuigge, the undersigned, do hereby offer to furnish all and every kind of labor, tools, machinery and other plant, services and materials whatsoever necessary for the due execution and completion of, and to fully perform, execute and complete in the most thorough, workmanlike and substantial manner, in accordance with the specifications hereto annexed and the plans, profiles and drawings prepared and to be prepared for the purposes of the work and upon the terms and conditions set out in the printed form of Contract furnished by the Commission and also attached hereto and in every respect to the satisfaction and approval of the Commission's Chief Engineer, all the work of the different kinds hereinafter mentioned, set out or referred to in the said specifications, so far as the same are applicable to the classes of work hereby tendered for, required in the construction of the roadbed of a branch of THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY, from Earlton to Elk Lake, a distance of 29 miles, more or less, that is to say, the clearing, grubbing, grading, cross-logging, ditching and stream diversions, truss, pile and trestle bridging, masonry and concrete culverts, iron and other pipe culverts, drains of various kinds, piers, abutments, road-crossings, bridge masonry, retaining walls, embankment protection, paving, rip-rap and all other work (except steel bridges) necessary to complete the roadbed ready for the ties and rails, but not including steel bridges, ties, rails or ballasting, at and for the price set opposite the different items in the following schedule:—

Description of Work	Measure.	Rate
Clearing.....	per acre	\$40.00
Close Cutting	per acre	20.00
Grubbing.....	per acre	100.00
Solid Rock.....	per cu. yd.	1.60
Loose rock.....	per cu. yd.	0.60
Common excavation	per cu. yd.	0.31
Overhaul, all materials, per cu. yard per 100 feet, over 500 feet, free haul		0.01
Cross logging, 1 foot deep, with 18 inches brush work....	per 100 square feet	3.00
Telegraph Poles cut on right-of-way	each	0.75
Fence Posts cut on right-of-way	each	0.15
Ties cut on right-of-way.....	each	0.25
Timber cut on right-of-way.....	per 1000 ft. B.M.	7.00
Trestle timber built in.....	per 1000 ft B.M	52.00

Description of Work.	Measure.	Rate.
Trestle timber delivered.....	per 1000 ft. B.M.	42.00
Culvert timber, built in.....	per 1000 ft. B.M.	35.00
Culvert timber, delivered.....	per 1000 ft. B.M.	30.00
Piling, driven.....	per lineal foot	0.35
Piling, delivered.....	per lineal foot	0.15
Concrete, 1, 2, 4.....	per cubic yard	15.00
Concrete, 1, 3, 5.....	per cubic yard	12.00
Rip-rap, hand-laid.....	per cubic yard	3.00
Paving.....	per cubic yard	5.00
Corrugated Pipe Culverts (laying).....	per lineal ft.	
12 inches diameter.....	"	0.50
18 " ".....	"	0.60
24 " ".....	"	0.70
30 " ".....	"	0.80
36 " ".....	"	0.85
Concrete Pipe Culverts (laying).....	"	
12 inches diameter.....	"	0.75
18 " ".....	"	1.00
24 " ".....	"	1.25
30 " ".....	"	1.35
36 " ".....	"	1.50

Accompanying this tender is an accepted cheque on the Bank of Ottawa, Toronto, Ont., for the sum of fifty-four hundred and eleven dollars and ninety-five cents, being equal to three per cent. of the total estimated amount of this tender, and it is hereby agreed and understood that in case of refusal or failure on my (or our) part to execute the said Contract with the Commission, and also to furnish the approved security for the faithful performance of the same, as required, within ten days after the acceptance of this tender, the said cheque shall be forfeited to the Commission as liquidated damages for such refusal or failure, and that all contract rights acquired by the acceptance of this tender shall be forfeited and all obligations assumed by the parties in connection therewith shall be released and mutually rescinded.

That the full names and residences of all persons interested in this tender, as principals, are as follows:—

TEMISKAMING AND NORTHERN ONTARIO RAILWAY
COMMISSION.

GENERAL SPECIFICATIONS FOR RAILWAY CONSTRUCTION.

GENERAL.

1. The centre of the roadbed shall conform in alignment to the centre stakes.
2. The grade line of the profile denotes sub-grade, and this term indicates the tops of embankments or the bottoms of excavations ready to receive the ballast.
3. The roadbed shall be formed to the sections, slopes, and dimensions shown upon the standard drawings or to such modifications thereof as are required to meet special conditions, as may from time to time be directed.
4. When finished and properly settled the roadbed shall conform to the finishing stakes, and shall be of the following dimensions at sub-grade, viz.:—For single track, on embankments 16 feet wide, and in excavations 22 feet wide. For each additional track an additional width of 13 feet shall be made.
5. The slopes of embankments and excavations shall be of the following inclinations, as expressed in the ratio of the horizontal distance to the vertical rise:—

EMBANKMENTS—Earth	one and one-half to one
Rock	one to one
EXCAVATIONS—Earth	one and one-half to one
Loose Rock	one to one
Solid Rock	one-quarter to one

These ratios may be varied according to circumstances and the slopes shall be made as directed by the Engineer.

CLEARING.

6. The whole or as much of the right-of-way and station grounds as the Engineer may direct shall be cleared entirely of all trees, logs, brush, and other perishable material. Additional land adjacent to the right-of-way shall be cleared on the written order of the Engineer when required as a protection to the property of the Commission.
 7. All trees, stumps, undergrowth and brush within such clearing shall be so cut that the tops of same shall not be more than eighteen inches above the surface of the ground, all of which (except as may be hereinafter mentioned) shall be burned or otherwise disposed of as the Engineer may direct. Special precautions shall be taken to prevent the spread of fire to adjoining property.
 8. All trees suitable for timber, telegraph poles, fence posts, or ties, when directed by the Chief Engineer, shall be reserved, stripped of their tops, and sawn into lengths as may be directed, and neatly piled at such places as may be designated, for which payment shall be made according to the schedule prices.
 9. On the ground to be covered by embankments less than four feet and more than two feet in height, all trees and stumps shall be cut off even with the surface of the ground and removed. Close-cutting when actually performed shall be paid for by the acre or fraction thereof.
 10. The work of clearing shall be kept at least 1,000 feet in advance of the grading.
 11. Clearing, when actually performed, shall be paid for by the acre or fraction thereof.
- 15 T.R.

GRUBBING.

12. In all excavations, including borrow pits, ditches, drains, new channels for waterways, on all ground to be covered by embankments less than two feet high, and other places when required all stumps and large roots must be grubbed out and removed.

13. The work of grubbing must be kept at least three hundred feet in advance of the grading.

14. Grubbing will be estimated and paid for by the acre or fraction thereof, when actually performed, in excavations less than four feet deep, including borrow pits, ditches, drains and new channels for water within the clearing limits and under embankments less than two feet high. No grubbing will be allowed on the slopes of any cutting where the depth at a distance of eleven feet on either side of the centre line exceeds four feet.

GRADING.

15. The term "Grading" will include all excavations and embankments for the formation of the roadbed, diversions of roads and streams, borrow pits and ditches, foundation pits for bridges, trestles, culverts, buildings and structures, and all similar work connected with or incident to the construction of the railway, its side-tracks and station grounds.

16. Grading will be classified under the following heads:—

"SOLID ROCK,"

"LOOSE ROCK,"

"COMMON EXCAVATION."

17. "Solid Rock" shall comprise all detached rock or boulders measuring more than one cubic yard, and all rock in place requiring blasting to remove it.

18. "Loose Rock" shall comprise all detached rock or boulders measuring more than one cubic foot and less than one cubic yard, and shale, slate, and other rock which can be removed without blasting, although blasting may be occasionally resorted to.

19. "Common Excavation" shall include all materials of whatever nature that do not come under the classification of "Solid Rock" or "Loose Rock."

20. There shall be no classification or allowance made for loose or solid rock in borrow pits unless specific instructions are given to the contrary, it being the intent and meaning of these specifications that all borrowed material shall be classified and paid for as "Common Excavation."

21. Excavation in excess of the authorized cross-section, as well as slips, slides and subsidences extending beyond the slope lines, will not be paid for unless in the opinion of the Engineer such occurrences were beyond the control of the Contractor and not preventable by the use of due care and diligence. In case of slides the surplus material shall be removed by the Contractor without delay and the slopes reformed. The classification of material from slides shall be in accordance with its condition at the time of removal, regardless of prior conditions.

22. The use of powder or other explosives in large blasts is prohibited, unless on written authority of the Engineer. In the event of the wasting of rock through any such blasting the Contractor shall, if the material is required in the vicinity for the making up of embankments, of which the Engineer shall be the judge, furnish at his own cost an equivalent amount of material for such embankment. One yard of rock in place being taken to equal one and one-half yards of earth.

23. All grading will be estimated and paid for by the cubic yard at the prices specified for the respective materials. Measurements shall be made in excavation only, except in cases hereinafter mentioned.

If it is impracticable to measure borrowed material in excavation, it may be measured in embankments, using the cross-section notes of the embankment and making a just and reasonable allowance for change in bulk, so that the quantities shall equal the excavation quantities as nearly as possible.

24. The limit of free haul will be 500 feet. For any haul exceeding 500 feet the Contractor shall be paid at one cent per cubic yard per 100 feet. The yardage overhauled shall be estimated in excavation.

The Contractor shall not be paid overhaul on materials removed from line cuttings, by trains running on permanent track.

25. Before beginning grading, as well as during the progress of the work, the Contractor shall remove all snow and ice from between the slope stakes at his own expense.

EXCAVATION AND EMBANKMENTS.

26. Excavation incident to the construction of the roadbed, ditches, channels and roadways shall be used in forming the embankments, but no material which would in the opinion of the Engineer be unsuitable shall be placed in the embankments.

27. Slopes of all excavations shall be cut true and straight and all loose or projecting stones in the slopes must be removed.

28. Where the quantity of excavation exceeds that required to make the embankments to standard cross-sections the surplus shall be used to widen the embankments as may be directed. No wasting of material shall be made except on written order of the Engineer.

29. Where wasting is ordered, the material shall, if possible, be deposited below sub-grade, and under no circumstances shall the waste bank have its nearest edge within six feet of the top of the cutting.

30. When the quantity of excavation from the cuttings of standard cross-section is sufficient to form the embankments within the limit of free haul the deficiency shall be made up by widening the cuttings as directed. No borrowing shall be done until this manner of obtaining material has been exhausted.

31. Whenever gravel, stone, or other material suitable for special purposes of the Commission is encountered, the same shall, if required, be reserved and deposited in suitable places along the right-of-way, for which service the Contractor shall not be entitled to any payment as an extra or otherwise.

32. A berm of five feet shall be left between the top of slope of rock cuttings and the toe of slope of the overlying earth.

33. Catch-water ditches as required shall be made along the tops of excavations to prevent water flowing into the cut. The location and cross-section of such ditches shall be designated by the Engineer, and, if required, shall be excavated before the cuts are opened.

34. When required four (4) inch tile drains shall be used. Their location shall be as directed by the Engineer. The trenches for these tile drains must be excavated below frost line and to a true grade. The tile shall be laid with ends butted, and shall be covered with brush, grass, hay or straw, over which shall be laid gravel, or other suitable material approved by the Engineer.

35. Ditches shall be formed at the bottom of the slopes in cuttings according to the cross-section shown upon the plans, or such modifications thereof as may

be directed; they shall be neatly made, clear of obstructions and at the lower end must diverge sufficiently to prevent erosion of the adjoining embankment.

36. Whenever it is necessary to provide for the settlement of the embankments, the height and width of the roadbed shall be increased, as directed.

37. When the embankment is to be placed on steep side hill, the surface shall be deeply plowed, stepped or trenched. If built on wet or spongy ground likely to be affected by water, the Contractor shall remove all unsuitable material, and if required shall underdrain the same with tile, broken stones, or pole drains as directed.

38. When required in crossing swamps and muskegs cross logging shall be laid under the embankments. Cross logging shall be built of logs of such lengths as may be directed by the Engineer; not less than six inches nor more than fifteen inches in diameter laid close and the bottom layer at right angles to the centre line. The depth of the log portion of the cross logging shall be not less than twelve inches. The cross waying shall be closely covered with brush to a depth of at least eighteen inches. Measurement of cross logging shall be by the square of 100 square feet or fraction thereof, of area covered.

No ditches shall be made on either side of the cross logging except by direction of the Engineer.

39. When embankments abut against masonry or trestle bridges, the earth forming such embankments shall be tamped or otherwise made as compact as possible.

40. Embankments over culverts of masonry or concrete or iron or vitrified pipe shall be built of the best obtainable material. The portion against the sides of the culvert or pipe shall be thoroughly tamped, using water where practicable. The portion over the arch or crown shall be deposited as loosely as possible, using all necessary care to avoid injury to the structure or pipe. The price paid for grading will cover the cost of doing such work.

41. When directed, embankments or slopes which are to be rip-rapped, shall be flattened to a slope of two to one.

42. The sub-grade shall be compacted and crowned four inches at the centre to facilitate drainage, and no depressions left that will hold water.

43. Rock excavation shall in all cases be taken out nine inches below sub-grade and refilled to sub-grade with approved material.

BORROW PITS, SIDE DITCHES, ETC.

44. On level country where embankments are much in excess of excavation, the material to form the embankments will usually be obtained from parallel side ditches: such ditches must be made continuous and constructed to a regular grade to facilitate drainage.

45. Land for borrow pits will be provided by the Commission. The borrow pits shall be located in such places as will be approved by the Engineer and no material shall be excavated from borrow pits on which the haul is greater than the limit of free haul unless so directed in writing by the Engineer.

46. Side slopes of side ditches in borrow pits shall be the same as used in the cross-section of the adjoining roadbed. Berms of not less than six feet in width shall be left between the slope stakes of the embankment and the edge of the borrow pit and a berm of not less than three feet between the outside slope of the borrow pit and the right-of-way line. Berms must consist of the original unbroken ground.

47. Borrow pits shall not be excavated before they have been staked out and the borrowing must be done in regular shape to admit of ready and accurate measurement.

48. No borrowing or wasting of material will be allowed on land set aside for station grounds except when so directed in writing by the Engineer.

FOUNDATIONS.

49. Foundation pits shall be of such dimensions and excavated to such depths as are shown on the plans, and if required, shall be excavated to such further dimensions and depths as may be necessary to insure stability of the structure to be erected, according to the instructions of the Engineer, but in no case less than is shown on plans, except by the order in writing of the Engineer.

50. Material excavated from the foundation pits shall be deposited in the embankments, unless otherwise directed.

51. Foundations must be built strictly according to the general or special plans. Material used in their construction must, in every respect, conform with the specifications of the Commission.

52. Great care must be used to thoroughly tamp and solidify the ground in the bottom of foundation trenches for bridges, trestles, culverts, buildings or other structures. Where mud sills are used they must be settled to a permanent bearing by ramming with heavy rammers.

RIP-RAPPING.

53. When required by the general or special plans, or ordered as protection against the action of water, rip-rapping shall be laid or placed on embankments or about foundations or at the ends of culverts or masonry or other places.

54. Before commencing to lay the rip-rap, the Contractor must, first of all, dress off any fulness and fill up any hollows in the face of existing bank, so as to present a uniformly even surface for the reception of the stones.

55. When required a trench shall be excavated at the base of the slope to such a depth as will insure a solid foundation, and all snow and ice or other perishable matter shall be removed.

56. Above the level of low water and for such height and width as may be designated by the Engineer, the stones must be carefully hand-laid on their natural bed. A minimum thickness (perpendicular to the slope) of three feet at the base and two feet at the top will be required. No stones are to be used having a less depth than eighteen (18) inches and they must be of as large superficies as procurable; the interstices between the larger stones being fitted in with smaller ones well hammered in; and wherever there are two layers, the face stones must break joint with those underneath, and headers must be built in at intervals every eight (8) feet horizontally and two (2) feet vertically. The work shall be finished at the top with a line of coping stones, having a depth of three (3) feet and a face width of at least nine inches. A hand-laid work to be done by men able to perform their work to the satisfaction of the Engineer, and the whole of the work to be done in a strong and workmanlike manner, to present a uniformly even surface when finished, and to be done throughout to the entire satisfaction of the Engineer.

57. For rip-rapping such parts of the bank as are under low water level, the stones must be of as large a size as are procurable. This work may be done at

random, but it must be at least three feet in thickness (measured perpendicularly to the slope) and must afford a good solid foundation for the hand-laid work above. Should the work be done in winter, the ice must be cut away to such a distance from the bank as to allow the stones to be properly deposited.

58. Rip-rapping will be paid for at the specified rate per cubic yard.

PAVING.

59. When required by the general or special plans, as ordered by the Engineer, the ends of masonry or concrete culverts, vitrified or iron pipe, the bottom of wooden culverts, and other places shall be protected by paving.

60. Paving will be made of flat stones set upon their edges, the longest dimensions at right angles to the waterway in such a manner as to leave the least possible space between them and of such size as to reach through the entire depth of the paving.

61. Great care must be taken at the ends of any piece of paving to make it secure so it cannot be undermined or cut by water flowing underneath it. The lower end must receive special care to prevent this undermining.

62. Paving will be paid for at the specified rate per cubic yard.

TIMBER STRUCTURES.

63. All structures must be built in strict accordance with the general plans and special plans to be furnished during the progress of the work.

64. All bridge and trestle timber shall be White Pine, Douglas Fir, Long Leaf Yellow Pine, or other timber as authorized in writing by the Chief Engineer.

65. Except as noted, all timber shall be cut from sound, live trees, sawed full size, shall be square-edged, close-grained, solid and out of wind; free from defects such as injurious ring shakes and crooked grain, unsound or loose knots, knots over three inches in diameter, knots in groups, decay, large pitch pockets, or other defects that will materially impair its strength.

(A) Stringers shall show not less than 80 per cent. heart, on each of the four sides, measured across the sides anywhere in the piece. Knots greater than $1\frac{1}{2}$ inches in diameter will not be permitted within four inches of the edges of the piece.

(B) Caps and sills shall show not less than 80 per cent. heart on each of the four sides measured across the sides anywhere in the piece. One-inch wane on each corner or $\frac{1}{2}$ -inch wane on two corners will be permitted.

(C) Posts shall show not less than 70 per cent. heart on each of the four sides, measured across the side anywhere in the piece. One-inch wane at one corner or $\frac{1}{2}$ -inch wane in two corners will be permitted. There shall be no knots in the corners of the posts.

(D) *Girths, Ties and Guard Rails*—Ties shall not show less than 75 per cent. heart measured across the face or sides anywhere in the piece and shall be free from knots over two inches in diameter.

(E) Braces shall show not less than 75 per cent. heart on the two faces and shall be free from knots over two inches in diameter.

66. All timber shall be cut as far as possible in the winter period, that is, from October to March.

67. All framing shall be made to fit closely and must be done in a thorough and workmanlike manner. No open joints, blocking, or shimming in making joints will be allowed. All timber shall be cut at the ends with a saw and not with an axe.

Holes shall be bored for all drift bolts for at least two-thirds of the length of the drift bolts to be used. The holes for all bolts shall be bored with an auger the same diameter as the bolt to be used.

Cast-iron bearing washers shall be used under the heads and nuts of all machine bolts. The nuts on all bolts shall be screwed on so that the washers shall pinch hard upon the wood and bring the members close together. Ends of bolts shall not project more than one-half inch beyond the nuts.

(A) Sills shall be sized over the piles or posts to a uniform thickness, and shall be securely drift-bolted to each pile or post.

(B) Posts shall be sawn to proper length for their position (vertical or batter), and to an even bearing on cap and sill. Posts shall be dowelled to the sill.

(C) Caps shall be sized to a uniform thickness and even bearing on piles or posts. Caps shall be drift-bolted to piles or posts.

(D) All sway braces shall be properly framed and securely bolted to all posts or piles.

(E) Longitudinal braces shall be properly framed and securely bolted to all posts.

(F) Girts shall be lapped over caps or subsills and securely bolted thereto.

(G) Stringers shall be sized to a uniform height at supports. The edges with most sap shall be placed down. The tops of all stringers shall be in the same plane. Stringers shall be drift-bolted to cap at each bearing.

(H) Ties shall be sized to a uniform thickness. They shall be spaced regularly, cut to even length and line as called for on the plans.

(1) The timber guard rail shall be notched one inch on to each tie and secured to every fourth tie by $\frac{3}{4}$ -inch bolts. The projections between the notches shall be secured by four 3-inch nails driven previously to the notches being cut. The guard rail shall be laid to line and uniform top surface. The guard rail shall be spliced over the ties by half-and-half joints with a 6-inch lap, securely bolted to the ties.

68. Frame trestles will have foundations composed of piles or mud sills. Care must be taken not to bury with earth any portion of the sills or posts. All pits for trestle foundation must have free drainage.

69. Where mud sills are used they must be settled as nearly as possible to a permanent bearing by the use of heavy rammers. Mud sills must in all cases be made of sound live cedar, unless otherwise ordered in writing. Mud sills will be paid for under the classification "Culvert timber, built in."

70. Before commencing work on any timber structure the ground must be entirely cleared of logs, brush and trees for the entire width of the right-of-way and during the progress of the work all refuse material, chip and brush shall be cleared from around the structure and burnt or otherwise disposed of as the Engineer may direct.

71. Timber in structures will be paid for under the following heads, the prices of the different items are to cover all expenses incurred:

Trestle timber (built-in) will include the actual quantity of timber left in the finished structure. The price paid for Trestle timber built-in will include the cost of all iron bolts, drift bolts, washers, etc., as shown on plans.

Trestle timber delivered will include any timber ordered on the Engineer's bill of material, and delivered on the site of structure, but not actually built in the structure.

PILING.

72. All piles shall be oak, rock elm, hemlock, tamarack, jack pine, cedar, or other timber as authorized in writing by the Chief Engineer.

When piles are for foundations of culverts or bridges or in other places where the piles will be constantly submerged, spruce may be used.

73. Piles shall be cut from sound, live trees and shall be straight and free from defects such as injurious wind shakes, large and unsound knots, decay or other defects that will materially impair their strength.

74. All piles except those to be used for foundations shall have the bark peeled off and trimmed smoothly to the body of the tree.

75. Sap wood shall not exceed a one-inch ring.

76. The dimensions and allowable wind shall be as per the accompanying table:

Length of Pile.	Minimum Top. Diam.	Diam. of Butt Min. Max.	Wind in inches for Le. gths of		
			20 ft.	30 ft.	40 ft.
0 —30 ft.	9 in.	14 in. to 20 in.	4 in.	6 in.	8 in.
31 ft.—40 ft.	8 in.	14 in. to 20 in.	—	—	—
41 ft.—	7 in.	14 in. to 20 in.	—	—	—

77. Piles will only be accepted and paid for in lengths which are a multiple of five.

78. Piles shall be accurately spaced and driven vertically unless otherwise shown on the plan. Unless otherwise directed piles shall be sharpened and driven with the small end down and the heads shall be protected from splitting and brooming with a suitable wrought iron ring. Piles shall be driven until they do not sink more than one inch per blow for the last ten blows of a hammer weighing two thousand pounds with a clear fall of twenty-five feet.

79. Should any piling be broken in the driving, another sound pile shall be driven alongside to replace it.

80. When necessary to drive to a great depth and piles of adequate length cannot be obtained, one shall be spliced on top of another. The first having been driven as far as practicable, it shall be cut off square to receive the following pile, which must also be squared and set on top of the one already driven, using a dowel pin one inch in diameter, extending at least eight inches into each pile. The piles shall, if required, be fastened together by an approved splice.

81. Piles shall be paid for as "Piling Driven" and "Piling Delivered." Those portions of piles above the line of cut off will be paid for as "Piling Delivered." The price paid for piling driven will include the furnishing, driving, straightening and cutting off of the piles.

TIMBER CULVERTS.

82. Except when otherwise ordered by the Engineer in writing Timber Box Culverts shall be built of sound hewed or sawn cedar and in accordance with standard plans.

83. Timber culverts will be paid for at the specified price per thousand feet board measure, for culvert timber built in, which price shall include cost of drift bolts.

PIPE CULVERTS.

84. Culvert pipe will be supplied by the Commission at the site of the culvert. The Contractor will be paid for placing the culvert pipe in position at the specified rate per lineal foot, which shall include the cost of all labor and material necessary or incidental to the completed work.

85. Great care must be taken to get a firm and uniform bearing for pipe culverts. Wherever possible the pipe should be so placed that the top of the pipe will be below the natural surface of the ground. Where the pipe is laid in hard ground the bottom of the trench should be rounded to fit the pipe so that the pipe may rest easily and solidly in its bed. If the ground is soft, special precautions to support the pipe will be taken.

86. The joints of all pipes must be well and thoroughly made, as shown on standard plans.

CONCRETE.

87. Concrete in general shall consist of one (1) part Portland cement, three (3) parts sand, and five (5) parts broken stone or screened gravel.

Where called for by the plans, concrete shall be in the proportions of one (1) part Portland cement, two (2) parts sand and four (4) parts broken stone or screened gravel.

88. The bridge seats and tops of pedestals shall have a course at least six (6) inches thick of 1:2:4 concrete. The stone for this course shall be specially selected and the particles not to exceed three-quarters of an inch and vary down to pea size. Particular care shall be exacted to insure the thorough mixing and depositing of this layer, which must be placed before the mass beneath it has set. The whole surface is to be floated off even and perfectly level with a wooden float to insure a perfectly smooth and even surface.

89. For the purpose of measurement, one hundred (100) pounds of Portland cement will be considered one cubic foot.

90. All sand used for mortar or concrete shall be clean and free from clay or loam, or other impurities. The grains shall be hard and of miscellaneous sizes. The fineness to be approved by the Engineer.

91. Broken stone shall be made by crushing a clean, hard and durable rock. It shall be freed from dust by passing over a 1/4-inch screen. No pieces shall be

larger than will pass through a two-inch ring. No pieces larger than will pass through a one-inch ring shall be used for reinforced concrete work.

92. All gravel brought on the works shall be composed of clean pebbles of hard and durable stone, free from clay and loam. The gravel shall be screened to remove particles less than $\frac{1}{4}$ -inch or greater than 2 inches in diameter.

93. The material shall be correctly proportioned by accurate measurements. The sand and cement shall be spread out in thin layers and mixed dry until of uniform color. This mixture shall then be spread out and the stone and water added, and the whole mass turned with a shovel at least three times. The number of turnings shall be sufficient to produce a concrete of uniform color and appearance with stones thoroughly incorporated into the mortar and the consistency uniform throughout.

If the concrete is mixed with a machine mixer, the mixer shall be of a type approved by the Engineer. The concrete shall be conveyed to its place in the forms in such a manner that the ingredients shall not become separated. The concrete shall in general be of such consistency that it can be thoroughly consolidated in the form by spading. The concrete against exposed surfaces shall be so spaded that a uniform mortar surface will be left against the forms. When the forms are removed, all irregularities in the exposed surface shall be neatly patched with cement mortar. When green concrete is placed against concrete that has set, the surface of the latter shall be thoroughly cleaned and then washed with neat cement grout.

Before placing concrete in footings the excavation will be inspected and measured by the Engineer. The piles shall project one foot into the concrete footings.

94. Forms shall be of lumber thoroughly braced and tied together so that the pressure of the concrete and the movement of men and material will not move them out of place. The forms shall be tight to prevent the leakage of cement and mortar. The face of forms against exposed surfaces shall be of dressed lumber. Forms shall not be removed until the concrete has thoroughly set.

95. Concrete shall be paid for at the unit prices as follows:

1:3:5—per cubic yard.

1:2:4—per cubic yard.

which shall include all temporary timbering, pumping, bailing, coffer dams, forms, centres, and any material or labor whatever necessary in the construction of the works and shall also include the setting of all anchor bolts or castings furnished by the Commission.

CEMENT.

96. The term "Portland cement" is applied to the finely pulverised product resulting from the calcination to incipient fusion of an intimate mixture of properly proportioned argillaceous and calcareous materials, and to which no addition greater than 3 per cent. has been made subsequent to calcination.

All cement used in the work governed by these specifications shall be Portland cement, of a reputable brand, acceptable to the Engineer. The cement shall be brought on the works packed in strong canvas bags or barrels. Cement shall be well protected from weather and piled on a dry floor placed well above the surface of the ground. It shall be stored so that each shipment can be readily identified. Each shipment of cement shall be at the works one month before it is to be used. Each carload of cement will be sampled after delivery on the works and tested in accordance with the methods approved by the Canadian Society of Civil Engineers, and shall satisfy the following requirements:

SPECIFIC GRAVITY.—The specific gravity shall not be less than 3.10.

FINESS.—The cement shall leave no residue on a No. 50 standard sieve, and residue of not more than 8 per cent. by weight on a No. 100 standard sieve.

SETTING.—It shall develop initial setting in not less than thirty minutes and must develop hard set in not less than one hour or more than ten hours.

SOUNDNESS.—Thin pats of neat cement shall show no signs of cracking, distortion or disintegration when submitted to the standard air, water and steaming tests.

TENSILE STRENGTH.—Briquettes one inch square in section shall attain at least the following tensile strengths, and shall show no retrogression within the periods specified:

NEAT CEMENT.

AGE	STRENGTH
24 hours in moist air	175 lbs.
7 days (1 day in air, 6 days in water)	450 lbs.
28 days (1 day in air, 27 days in water)	600 lbs.

ONE PART CEMENT—THREE PARTS STANDARD SAND.

7 days (1 day in moist air, 6 days in water) .	175 lbs.
28 days (1 day in moist air, 27 days in water)	250 lbs.

CHEMICAL ANALYSIS.—The cement shall not contain more than 2 per cent. of anhydrous sulphuric acid (SO_3), not more than 4 per cent. of Magnesia (MgO).

GENERAL CONDITIONS.

(A). The Contractor must inform himself of the nature of the soil and character of the work before submitting his tender.

(B). The Engineer shall have the power to direct the application of the Contractor's forces to any portion of the work which in the judgment of the Engineer may require it and to order the increase or diminution of force at any point he may direct.

(C). The decision of the Engineer as to the intent and meaning of these specifications shall be final. The Engineer shall be the sole judge of the work and materials in respect of both quality and quantity and his decision on all questions in dispute with regard to work or material shall be final. No works or extra or additional works or changes shall be deemed to have been executed nor shall the Contractor be entitled to payment for same unless the same shall have been executed to the satisfaction of the Engineer as evidenced by his certificate in writing, which certificate shall be a condition precedent to the right of the Contractor to be paid therefor.

(D). Wherever the word "Commission" is used in these specifications it shall mean the Temiskaming and Northern Ontario Railway Commission.

(E). Wherever the word "Contractor" is used in these specifications, it shall mean the Contractor for the work governed by these specifications.

(F). Wherever the word "Engineer" is used in these specifications, it shall mean the Chief Engineer of the Temiskaming and Northern Ontario Railway Commission, or one of his regularly appointed assistants or inspectors.

(G). The Contractor at his own cost must provide all wagon roads to reach and carry on the work. He must provide all tools of every description and all sup-

plies required for the prosecution of the work. No allowance or compensation whatsoever shall be paid to the Contractor for any temporary roads, bridges or trestles that he may make to facilitate the work.

(H). The Contractor shall, at his own expense, make and keep in good condition commodious passing places for public and private roads traversed by the line of Railway; and he shall be held responsible for damages of whatsoever nature to persons or neighboring property caused by workmen in his employ leaving gates or fences open, blasting rocks, building fires, or in other ways. If necessary the payment of the estimate may be withheld until such damages are satisfactorily adjusted, the intention of the contract being that the Commission shall not be held responsible for any claims or losses incurred during the construction of the line, due to the operations or negligence of the contractor or his employees.

(I). The alignment, gradients and cross-sections of the roadbed, as well as ditches and other incidental work, may be altered in whole or in part as deemed necessary either before or after the commencement of the work, but any such change or alteration shall not effect the unit prices specified in the contract, nor shall any such changes or alterations constitute claims for damages, nor shall any claim be made or allowed on account of such changes or alterations.

(J). The Contractor shall carefully preserve all bench marks and stakes, and in case of neglect to do so will be charged with the resulting expense.

(K). Before the work is finally accepted the Contractor shall, at his own expense, clear away from the Commission's property, as well as from public and private roads and the channels of streams and ditches, all rubbish and surplus blasted or excavated material.

(L). The Contractor shall take all risks from casualties of every nature and shall not be entitled to any compensation for detentions from such causes. All stock, tools and machinery employed on the work by the Contractor are at his risk while on the property of the Railway Commission, and the Contractor agrees to make no claim for injury or damage to same which may be caused by the operation of the Railway.

(M). The cost of any extra work shall not be considered or allowed unless such extra work shall have been done by direction in writing, and such written directions shall in every case contain the rates and methods of payment for said extra work.

(N). The classifications "Trestle timber delivered," "Culvert timber delivered," and "Piling delivered" included in the schedule and form of tender, are inserted with two objects: (a) To furnish a basis for guidance of the Engineer in granting progress certificates; (b) to fix price of timber or piling properly delivered under the authority of the Engineer, but not afterwards included in "Timber built in" or in "Piling delivered." As to all timber ultimately built in and as to all piling ultimately driven and allowed for under the classifications "Trestle timber built in" and "Piling driven," the price so allowed shall be deemed to include the price allowed in respect of such timber or piling under the classifications "Trestle timber delivered," "Culvert timber delivered," and "Piling delivered."

S. B. CLEMENT,

Chief Engineer.

NORTH BAY, ONT.,

February 3rd, 1912.

(Sgnd.) W. A. McCAFFREY. (Seal)

(Sgnd.) C. McQUIGGE. (Seal)

A. J. MCGEE,

(Seal)

Secy-Treasurer.

TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION.

FORM OF CONTRACT FOR RAILWAY CONSTRUCTION.

THIS AGREEMENT made (in triplicate) the Twenty Second day of March, 1912.

BETWEEN:

WILLIAM MCCAFFERY AND CUMBERLAND MCQUIGGE, hereinafter called the Contractor.

and

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, hereinafter called the Commission.

WITNESSETH as follows:—

In consideration of the covenants and agreements hereinafter contained and to be performed by the Commission, and of the price hereinafter mentioned, the Contractor hereby COVENANTS AND AGREES with the Commission as follows:—

1. In this agreement the word “work” or “works” shall, unless the context requires a different meaning, mean the whole of the work and materials, matters and things required to be done, furnished and performed by the Contractors under this agreement.

2. The words “Engineer,” or “Chief Engineer” when used in this agreement or in the specifications hereunto annexed, shall mean the Chief Engineer of The Temiskaming and Northern Ontario Railway Commission for the time being acting as such, either directly or through the Assistant Chief Engineer, Division Engineer, Assistant Engineer, Resident Engineer or Inspector, having immediate charge of the work or of that portion thereof limited by the particular duties entrusted to him. All instructions and directions or certificates given, or decisions made, by anyone acting under the authority of the Chief Engineer shall be subject to his approval and may be cancelled, altered, modified and changed as he may see fit. In all cases where the Contractor is dissatisfied with the decision of the Engineer or Inspector in immediate charge of the work, an appeal to the Chief Engineer may be made. It is declared and agreed that it shall not be in the power of the Chief Engineer or of any Engineer or Inspector to waive any of the provisions of this agreement and no waiver of any such shall on any pretence be claimed by the Contractor.

3. Whenever in this agreement it is stipulated that anything shall be done or performed by either of the parties hereto, it shall have the same effect and be construed as if the said party had thereby entered into a covenant with the other party to do or perform the same, and that any such covenant had been expressly made and entered into, not only by, for, or on behalf of the parties hereto respectively, but also by, for, and on behalf of their respective executors, administrators, successors and assigns, as the case may be. Whenever this agreement is entered into by more than one person as parties of the first part, the word “Contractor” shall be read “Contractors,” and all pronouns in this agreement or in the speci-

fifications hereunto annexed referring to the Contractor shall be read as plural, and whenever a corporation is the party of the first part, the said pronouns shall be read accordingly.

4. The Contractor shall, at his own expense, furnish all and every kind of labor, tools, machinery and other plant, services and materials whatsoever necessary for the due execution and completion of, and shall fully construct, perform, execute and complete in the most thorough, workmanlike and substantial manner in every respect to the satisfaction and approval of the Chief Engineer in the manner and upon the terms and conditions herein specified and according to the specifications annexed hereto and which, for the purposes of identification, have been signed by the Contractor, the Chief Engineer and Secretary of the Commission and form part of this agreement, and to the plans, profiles and drawings in the office of the Chief Engineer, and any further plans or drawings in addition hereto which the Chief Engineer may find necessary to provide from time to time for the full and complete performance of the work and will, on or before the first day of September next, finally complete and deliver to the Commission all the work of the different kinds hereinafter mentioned, set out or referred to in the said specifications hereto annexed in so far as the same are applicable to the classes of work hereby contracted for and shown on the said plans, profiles and drawings prepared and those to be prepared for the purpose of the work, required in the construction of the roadbed of that portion of the Temiskaming and Northern Ontario Railway between Earlton and Elk Lake, a distance of twenty-nine miles, more or less, that is to say, the clearing, close-cutting, grubbing, grading, cross-logging, ditching and stream diversions, truss, pile and trestle bridging, masonry and concrete culverts, iron and other pipe culverts, drains of various kinds, piers, abutments, road-crossings, bridge masonry, retaining walls, embankment protection, paving, rip-rap and all other work of every nature whatsoever (except steel bridges) necessary to complete the roadbed, ready for the ties and rails, but not including steel bridges, ties, rails or ballasting.

5. Time shall be of the essence of this agreement.

6. All of the said works shall be constructed of the best materials of their several kinds, and finished in the best and most workmanlike manner, in the manner required by and in strict conformity with the said specifications and the plans and drawings relating thereto, and the working or detail drawings which may, from time to time, be furnished for the guidance of the Contractor (which said specifications and drawings and the workings or detail drawings to be hereafter furnished are hereby declared to be part of this agreement) and to the complete satisfaction of the Chief Engineer.

7. The several parts of this agreement shall be taken together, to explain each other, and to make the whole consistent; and if it be found that anything has been omitted or mis-stated, which is necessary for the proper performance and completion of any part of the works herein contracted for, the Contractor shall, at his own expense, execute the same as though it had been inserted and properly described, and the correction of any such error or omission shall not be deemed to be an addition to or deviation from the works hereby contracted for.

8. The said work shall be commenced immediately after the execution of this agreement, and shall be proceeded with continuously and diligently, and under the personal supervision of the Contractor, until completed. The work shall be carried on and prosecuted in all its several parts in such a manner and at such points and places as the Chief Engineer shall, from time to time, direct and to his satisfaction.

but always according to the provisions of this agreement, and, if no direction is given, then in a careful, prompt and workmanlike manner, according to this agreement. The Contractor shall make and keep open for use, in safe condition, all crossings and approaches wherever the line of railway traverses any public or private road, and shall alter and amend such roads, crossings and approaches whenever required by the Engineer in charge of the work, during the construction of the line.

9. This agreement shall not be assigned, nor shall the said work or any part thereof be sub-contracted, without the written consent of the Chief Engineer to every such assignment or sub-contract.

10. The Contractor shall in all things conform to and comply with the instructions of the Chief Engineer. Every facility shall at all times be given by the Contractor to the Chief Engineer and to any Engineer or Inspector appointed by him to examine and inspect the materials provided, used or being used in the work, and the work as done and being done, and all orders of the Chief Engineer or the Engineer or Inspector as to the fitness or unfitness of the materials or work shall be obeyed by the Contractor. All work and materials shall be subject to the approval of the Chief Engineer, and any work or materials which, in the opinion of the Chief Engineer, is not of the character, quality, dimensions or design required by the plans or specifications, or which is in the judgment of the Chief Engineer otherwise in any manner defective, imperfect or insufficient, shall be replaced or remedied when pointed out to the Contractor by the Chief Engineer, and shall be made good and sufficient by the Contractor, at his own expense, and to the satisfaction of the Chief Engineer, who shall have the power and whose duty it shall be, to have any defective work or material taken out and rebuilt, or replaced at the expense of the Contractor. Any omission by the Chief Engineer to disapprove of or reject any insufficient or imperfect work at the time of any estimate shall not be deemed an acceptance of such work or material.

11. The Chief Engineer shall be at liberty at any time, either before the commencement or during the construction of the work or any portion thereof, to order any extra work to be done, and to make any change or alteration which he may deem expedient in the alignment or grade of the railway, or in the dimensions, nature, location or position of the works, or of any part or parts thereof, or in any other thing connected with the works, whether or not such changes increase or diminish the work to be done, or the cost of doing the same, and the Contractor shall immediately comply with all written directions of the Chief Engineer in that behalf, but the Contractor shall not make any change in or addition to, or omission, or deviation from the works, and shall not be entitled to any payment for any change, addition, deviation or any extra work, unless such change, addition, omission, deviation or extra work, shall have been first directed in writing by the Chief Engineer, and notified to the Contractor in writing, nor unless the price to be paid for any addition or extra work shall have been previously fixed by the Chief Engineer in writing, and the decision of the Chief Engineer as to whether any such change or deviation increases or diminishes the cost of the work, and as to the amount to be paid or deducted, as the case may be in respect thereof, shall be final, and the obtaining of his decision in writing as to such amount shall be a condition precedent to the right of the Contractor to be paid therefor. If any such change or alteration shall, in the opinion of the Chief Engineer, materially affect the cost of doing the work, he shall fix or determine the price to be paid either above or below the prices, hereinbefore provided to be paid for such work, as

the case may be, so as to do substantial justice to both parties, and his decision as to the amount to be fixed for the price of such work shall be final.

In case any work shall be required to be done by the Contractor, which, in the opinion of the Chief Engineer, shall not fall within any of the classes of work enumerated in the said tender, the Chief Engineer may from time to time, if he sees fit, instead of requiring any such work to be done by day labor, as provided in the specifications and in clause 38 of this agreement, fix the amount to be paid in respect thereof, and his decisions in that behalf shall be final, and the obtaining of his decision in writing shall be a condition precedent to the right of the Contractor to be paid therefor.

12. All the clauses of this agreement shall apply to any changes, additions, omissions, deviations, or extra work, in like manner and to the same extent as to works contracted for, and no changes, additions, deviations, omissions or extra work shall annul or invalidate this agreement.

13. If any change or deviation in, or omission from the works be made by which the amount of work to be done shall be decreased, no compensation shall be claimable by the Contractor for any loss of anticipated profits in respect thereof.

14. All claims for extra work or material must be presented to the Chief Engineer for allowance at the end of the month in which the same shall have been done or furnished, and shall, if allowed by the Chief Engineer, be included in the estimate for that month, otherwise all claims therefor shall be deemed to be absolutely waived by the Contractor, and the Commission shall not be required to allow or pay for the same, unless, in the judgment of the Commission, under the circumstances of the case, it is reasonable and proper to do so.

15. The Chief Engineer shall be the sole judge of work and material in respect of both quantity and quality, and his decision on all questions in dispute with regard to work or material, shall be final, and no works or extra or additional works or changes shall be deemed to have been executed, nor shall the Contractor be entitled to payment for the same, unless the same shall have been executed to the satisfaction of the Chief Engineer, as evidenced by his certificate in writing, which certificate shall be a condition precedent to the right of the Contractor to be paid therefor.

16. The prices to be paid for the different kinds of work set out or referred to in the list or schedule of prices are intended to and shall include not merely the particular kind of work or material mentioned in the said list or schedule, but also all and every kind of work, labor, tools and plant, materials, articles and things whatsoever necessary for the full execution and completion ready for use of the respective portions of the works, to the satisfaction of the Chief Engineer. In case of dispute as to what work, labor, material, tools and plant are or are not so included, the decision of the Chief Engineer shall be final and conclusive.

17. A competent superintendent or foreman shall be kept on the ground by the Contractor during all the working hours, to receive the orders of the Chief Engineer, and, should the person so appointed be deemed by the Chief Engineer incompetent, or conduct himself improperly, he may be discharged by the Chief Engineer, and another shall be at once appointed in his stead; such superintendent or foreman shall be considered as the lawful representative of the Contractor, and shall have full power to carry out all requisitions and instructions of the Chief Engineer.

18. In case any materials, or other things in the opinion of the Chief Engineer, which are not in accordance with the several parts of this agreement or

are not sufficiently sound, or are otherwise unsuitable for the respective works, shall be used for or brought to the intended works, or any part thereof, or in case any work shall be improperly executed, the Chief Engineer may require the Contractor to remove the same, and to provide proper materials or other things, or to properly re-execute the work, as the case may be; and thereupon the Contractor shall and will immediately comply with the said requisition, and if twenty-four hours shall elapse and such requisition shall not have been complied with, the Chief Engineer may cause such materials or other things, or such work, to be removed, and, in any such case, the Contractor shall pay to the Commission all such damages and expenses as shall be incurred in the removal of such materials, or other things, or of such work, or the Commission may, in its discretion, retain and deduct such damages and expenses from any amounts payable to the Contractor.

19. All machinery and other plant, materials and things whatsoever provided by the Contractor for the works hereby contracted for, and not rejected under the provisions of the last preceding clause, shall, from the time of their being so provided, become, and, until the final completion of the said work, shall be the property of the Commission for the purposes of the said works, and the same shall on no account be taken away, or used or disposed of except for the purposes of the said works, without the consent in writing of the Chief Engineer and the Commission shall not be answerable for any loss or damage whatsoever which may happen to such machinery, or other plant, materials or things, provided always that, upon the completion of the works and upon payment by the Contractor of all such moneys, if any, as shall be due from him to the Commission, such of the said machinery and other plant, materials and things as shall not have been used and converted in the works and shall remain undisposed of, shall, upon demand be delivered up to the Contractor.

20. In case the Contractor shall make default or delay in diligently continuing to execute or advance the works to the satisfaction of the Chief Engineer, and such default or delay shall continue for six days after notice in writing shall have been given by the Chief Engineer to the Contractor requiring him to put an end to such default or delay, or in case the Contractor shall become insolvent or make an assignment for the benefit of creditors, or neglect, either personally or by a skilful and competent agent, to superintend the work, or if any winding-up order is made against the Contractor under the provisions of the Winding-Up Act or any Act of a similar character applicable to the Contractor, or in case the Contractor does not give access to and allow inspection of and the making of extracts from pay rolls, books and vouchers, from time to time, to the Chief Engineer or the Commission, or to any person or persons, from time to time, instructed by the Chief Engineer or by the Commission in that behalf, so that the said Chief Engineer may satisfy himself of the due observance by the Contractor, and by all Sub-Contractors, of all the provisions of this contract, and especially of the provisions of clause 30 hereof, and that the Commission may satisfy itself, from time to time, of the due observance by the Contractor and by all Sub-Contractors of the provisions of clause 31 of this contract, or if the Contractor, or any Sub-Contractor, is in the opinion of the Chief Engineer, who shall be the sole and final judge thereof, guilty of any violation of any of the provisions of Clause 30 hereof, or if the Contractor, or any Sub-Contractor, is in the opinion of the Commission, who shall be the sole and final judge thereof, guilty of any violation of any of the provisions of Clause 31 hereof, then in any of such cases the Commission may take the work

out of the hands of the Contractor and employ such means as it may see fit to complete the work, and the Contractor shall have no claim for damages or for any further payment in respect of the work performed, but shall nevertheless remain liable for all loss or damage which may be suffered by reason of the non-completion by him of the works: and all materials and things whatsoever, and all horses, machinery and other plant provided by him for the purposes of the works shall remain and be considered as the property of the Commission for the purposes and according to the provisions and conditions contained in paragraph 22 hereof.

21. If the work to be done under this agreement shall be abandoned, or be assigned by the Contractor without the consent of the Commission, or if the Contractor shall lose control of the work for any cause, excepting the acts of God, or of the public enemy, or if at any time the Chief Engineer shall be of the opinion, and shall so certify in writing to the Commission, that the Contractor is wilfully and persistently violating any of the conditions or covenants of this agreement, or is not executing said works in good faith, the Commission may take the work out of the hands of the Contractor and may employ such means as it may see fit to complete the work, and all the provisions of section 20 of the agreement shall thereupon apply and the Commission shall have in regard to the said work all the powers therein provided.

22. If the Chief Engineer shall at any time consider that the number of workmen, horses or quantity of machinery, or other plant, or the quantity of proper materials respectively employed, provided or supplied by the Contractor on or for the said works, is insufficient for the advancement thereof towards completion within the limited time, or that the works are, or some part thereof is, not being carried on with due diligence, then in every such case the Chief Engineer may, by written notice to the Contractor, require him to employ or provide such additional workmen, horses, machinery or other plant or materials as the Chief Engineer may think necessary, and, in case the Contractor shall not thereupon, within seven days, or such other longer period as may be fixed by any such notice, in all respects comply therewith, then the Chief Engineer may, either on behalf of the Commission, or, if he sees fit, may as the agent of and on account of the Contractor, but in either case, at the expense of the Contractor, provide and employ such additional workmen, horses, machinery and other plant, or any portion thereof, or such additional materials, respectively, as he may think proper and may pay such additional workmen such wages, and for such additional horses, machinery or other plant and materials respectively such prices as he may think proper, and all such wages and prices respectively shall thereupon at once be repaid by the Contractor, or the same may be retained and deducted out of any sum that may then or thereafter be or become due from the Commission to the Contractor, and the Commission may use in the execution or advancement of the said works not only the horses, machinery and other plant and materials so in any case provided by anyone on its behalf, but also all such as may have been or may be provided by or on behalf of the said Contractor.

23. The Commission shall have the right to suspend operations from time to time at any particular point or points or upon the whole of the work, or to direct that the force employed on the work shall be diminished, and the Contractor, upon being requested in writing so to do by the Commission, shall stop the work or reduce the force, as the case may be, in accordance with such written request, and the Contractor shall have no claim for damage by reason thereof. Such writing shall be signed by the Chief Engineer and delivered to the Contractor, or to some person

on the work representing the Contractor, at least ten days previous to such stoppage of work or reduction of force.

24. If there be any stoppage of the said work upon the written directions of the Commission, or if its progress be materially delayed from want of location or staking out of the line of the work, or securing the right-of-way by reason of any act or neglect of the Chief Engineer or of any agent or employee of the Commission, the time herein specified for completing the said work shall be extended for a period of time equal to the time of such stoppage or delay as same shall be ascertained and certified by the Chief Engineer and the Contractor shall have no further or other claim therefor, or from anything arising therefrom or caused thereby. The right of the Contractor to such extension shall be deemed to have been waived unless a claim therefor, stating the occasion and nature thereof, shall be made by him in writing, delivered to the Commission at the time of such stoppage or delay. At any time after operations have been suspended either in whole or in part, such operations may be again resumed and again suspended and resumed as the Commission may deem proper and the Contractor, upon receiving written notice on behalf of the Commission that the suspended operations are to be resumed, shall at once resume the prosecution of the work under this agreement and diligently carry on the same.

25. The Contractor shall not have nor make any claim or demand or bring any action against the Commission for any damage which he may sustain by reason of any delay in the progress of the work, arising from the acts of any of the Commission's agents, and it is agreed that, in the event of any such delay, the Contractor shall have such further time for the completion of the works as may be fixed in that behalf by the Chief Engineer.

26. In case of a total suspension of all work under this agreement without any fault, default, collision or procurement of the Contractor for a longer period than days, unless such suspension shall have been caused by the winter season or protracted rigor of weather, it shall be the duty of the Engineer to make a final estimate of the work done according to the terms of this agreement, and to make a return thereof to the Commission when the amount found by the Chief Engineer to be then due for work done, together with all percentages retained up to that time, except as herein otherwise provided, shall be paid to the Contractor.

27. No delay within or beyond the period herein specified for completing the said work shall vitiate or void this agreement, or any part thereof, or the obligation hereby imposed upon the Contractor, or shall make void or in anywise impair or affect any current or other bond or security for the performance of this agreement, and all the covenants and agreements in this agreement and in the said specifications contained shall apply to this agreement and to the said work until the said work is finally completed and accepted, notwithstanding the fact that such work is not completed within the time specified herein for such completion.

28. The Contractor shall be at the risk of, and shall bear all loss or damage whatsoever, from whatsoever cause arising, which may occur to the works, or any of them, until the same shall be fully and finally completed and delivered up to and accepted by the Commission; and, if any such loss or damage shall occur before such final completion, delivery and acceptance, the Contractor shall immediately, at his own expense, repair, restore and re-execute the work so damaged.

29. The Contractor and his agents, laborers and all others employed by him or under his control, shall use due care that no person or property is injured or any rights infringed in the prosecution of the said work, and the Contractor shall be

responsible for and will pay all damages claimable by any person or corporation whatsoever in respect of any injury to persons or property or in respect of any infringement of any right whatsoever, including damage by fire, occasioned in his carrying on of the said works, or by any neglect or misfeasance or nonfeasance on his part, or on the part of his servants or employees, and shall and will, at his own expense, make such temporary provisions as may be necessary for the protection of persons, and of lands, buildings, animals or other property, or to prevent the interruption of the traffic on any private or public road or for the uninterrupted enjoyment of all rights of persons or corporations in and during the performance of the said works.

30. In case any sum due for the labor of any foreman, workman or laborer, or for the use of any horses or other animals or wagons or other plant employed upon or in respect of the said works or any of them, or the price of any materials or supplies purchased for the said work remains unpaid the Chief Engineer may notify the Contractor to pay such sum, and if two days elapse and the same be not paid the Commission may pay such sum, and the Contractor covenants with the Commission to repay at once any and every sum so paid, and if the Contractor does not repay the same within two days the Commission may deduct the amount or amounts so paid by it from any sum that may then or thereafter be or become due by the Commission to the Contractor.

31. The Contractor shall in connection with the whole of the said work, as far as practicable, use only material, machinery, plant, supplies and rolling stock manufactured or produced in Canada, provided same can be obtained as cheaply and upon as good terms in Canada as elsewhere, having regard to quality and price, and shall not at any time in connection with the construction of the said railway or works or any other matter arising out of or connected with this contract employ any person or persons in contravention of "The Alien Labor Act" or the provisions of "The Railway Act of Ontario" respecting the employment of alien labor and shall pay to all workmen, laborers and other servants employed in or about the construction of the said railway and works and every other matter arising out of or connected with this contract such rates of wages as may be currently payable to workmen, laborers and servants engaged in similar occupations in the district in which such railway and works are to be constructed, and shall be responsible for the observance by all Sub-Contractors on their part of the Provisions of this clause. And in the event of the Commission who shall be sole, absolute and final judge of such matters being satisfied at any time that the Contractor or any Sub-Contractor has been guilty of any violation of any of the provisions of this clause, the Commission shall have the right from time to time and as often as it shall be satisfied that any such violation has taken place to withhold all payments from the Contractor until such violation of any of the provisions of this clause shall in the opinion of the Commission have ceased and until such amends as the Commission may require shall have been made for all such violation, and on being notified by the Commission of any such violation it shall be the duty of the Chief Engineer to withhold all certificates from the Contractor until the Commission shall be satisfied that such violation has ceased and until amends shall have been made to the satisfaction of the Commission as aforesaid.

32. The Contractor hereby authorizes and empowers the Commission or its solicitors to defend, settle or compromise any action or suit claim, lien or demand which may be brought against the Commission for or by reason of any act or default of the Contractor as the Commission or its Solicitors may deem expedient.

and the Contractor hereby agrees to ratify and confirm all the said acts of the Commission or its Solicitors in that behalf, and to pay to the said Solicitors on demand their reasonable costs of defending such suits or claims as they may deem it expedient to defend, and that such costs, together with any damages so settled or agreed upon by the Commission or its Solicitors and any Claimant, or the amount of any judgment recovered against the Commission in the premises will forthwith upon the same being ascertained be paid by the Contractor, and in default of his paying the said damages and costs or any portion thereof on demand, the same may be deducted from any moneys payable by the Commission to the Contractor on any account whatever and the balance thereof if any, may be recovered from the Contractor as money paid to his use.

33. Any damage by fire that may occur to buildings or structures during construction, must be made good by the Contractor, who must keep all such structures fully insured until the same have been completed and accepted by the Commission. The operation or occupation by the Commission of a portion of the work, before the completion of the whole, is not to be considered as an acceptance of the same by the Commission. The premiums for fire insurance shall be payable by the Contractor, and the policies are to be made payable to the Commission, or in such form as the Chief Engineer may direct, the loss being made payable as the interest of the Contractor and of the Commission respectively may appear. The policy or policies shall be deposited with the Chief Engineer until the completion and acceptance of the work.

34. The Contractor shall not bring nor permit to be brought anywhere on or near the said work any spirituous or intoxicating liquors, and, if any foreman, laborer or other employee of the Contractor shall, in the opinion of the Chief Engineer, be intemperate, disorderly, incompetent, wilfully negligent or dishonest in the performance of his duties, he shall, on the direction of the Chief Engineer be forthwith discharged and the Contractor shall not employ or permit to remain upon the work any person who shall have been discharged from the said work for any or all of the said causes.

35. Upon the completion of the work, the Contractor shall remove all temporary structures, fill up all holes and trenches, level all mounds or heaps of earth that may have been dug or built by him in the execution of the work or incident thereto, and shall remove and clean away all surplus and waste materials or rubbish of whatever kind remaining on or about the works and deposit such refuse material at such place as the Engineer may designate.

36. In consideration of the faithful performance by the Contractor of all and singular the covenants and agreements herein contained, the Commission hereby covenants and agrees with the Contractor that it will well and truly pay him on the full completion by him of all the work to be done under this agreement in the manner and within the time herein specified and limited for the completion thereof to the satisfaction of and subject to acceptance by the Chief Engineer and subject also as herein provided, the following sums and prices, namely:—

Description of Work.		Measure.	Rate.
			\$ c.
Clearing	per acre		40 00
Close Cutting	per acre		20 00
Grubbing	per acre		100 00
Solid Rock	per cubic foot		1 60
Loose Rock	per cubic yard		60
Common Excavation	per cubic yard		31
Overhaul, all materials, per cubic yard per 100 feet, over 500 feet, free haul			0 01
Cross Logging, 1 foot deep, with 18 inches brushwork.....	per 100 square feet		3 00
Telegraph Poles cut on right-of-way	each		75
Fence Posts cut on right-of-way	each		15
Ties cut on right-of-way	each		25
Timber cut on right-of-way	per 1,000 feet B.M.		7 00
Trestle Timber, built in	per 1,000 feet B.M.		52 00
Trestle Timber, delivered	per 1,000 feet B.M.		42 00
Culvert timber, built in	per 1,000 feet B.M.		35 00
Culvert Timber, delivered	per 1,000 feet B.M.		30 00
Piling, driven	per lineal foot		35
Piling, delivered.....	per lineal foot		15
Concrete, 1: 2: 4	per cubic yard		15 00
Concrete, 1: 3: 5	per cubic yard		12 00
Rip-rap, hand-laid.....	per cubic yard		3 00
Paving	per cubic yard		5 00
Corrugated Pipe Culverts (laying).....	per lineal foot		
12 inches diameter.....	" "		50
18 " "	" "		60
24 " "	" "		70
30 " "	" "		80
36 " "	" "		85
Concrete Pipe Culverts (laying).....	" "		
12 inches diameter.....	" "		75
18 " "	" "		1 00
24 " "	" "		1 25
30 " "	" "		1 35
36 " "	" "		1 50

37. Approximate estimates of the work done, made up from returns of progress measurements and computed at the prices determined or agreed upon under the provisions of this agreement, are to be made by the Engineer at the end of each calendar month, and on or about the twentieth day of the next ensuing month payments equal to about ninety per cent. of the value of the work done, as shown by such approximate monthly estimate, shall be made to the Contractor upon presentation of the written certificate of the Chief Engineer that the work for or on account of which the certificate is granted has been duly performed and executed to his satisfaction and stating the value of such work computed as mentioned and upon approval of such certificate by the Commission and the said certificate and such approval thereto shall be a condition precedent to the right of the Contractor to be paid the said ninety per cent. or any part thereof. The remaining ten per cent. shall be retained by the Commission until the final completion of the whole work as an additional security for the performance of this agreement by the Contractor and when, in the opinion of the Chief Engineer, this agreement has been completely performed in accordance with the provisions thereof, and until the Chief Engineer shall be satisfied that all wages of all workmen, laborers and servants of the Contractor, and of all Sub-Contractors under him, as well as the price of all materials and supplies made, procured or provided for the Contractor, or for any of the Sub-Contractors, have been duly paid, he shall certify the same accordingly in writing, under his hand, with a final estimate of the work done by the Contractor, and with a statement of the work due and unpaid, and within two months after the granting of such certificate the amount so found due shall be paid to the Contractor upon delivery to the Commission of a good and valid release and discharge of and from any and all claims and demands for and in respect of all matters and things growing out of or connected with this agreement, or the subject matter thereof. The written certificate of the Chief Engineer certifying to the final completion of the work to his entire satisfaction and of the evidence called for by this clause having been furnished to him shall be a condition precedent to the right of the Contractor to receive or be paid the amount certified by the Chief Engineer as due and unpaid or any part thereof and the certificate of the Chief Engineer shall be conclusive as to the amount to be paid to the Contractor.

38. In addition to the foregoing contract price, the Commission will pay to the Contractor for extra work done under written orders of the Chief Engineer, not covered by this agreement, but done in the proper execution of this agreement, and for which prices are not named herein, the actual cost of such work, with an additional ten per cent. on the cost of labor and materials for the use of tools, contractor's plant, superintendence and profit, but such actual cost shall not exceed the reasonable market value of such labor and materials, as the case may be.

39. Where, in the opinion of the Chief Engineer, the work done or materials furnished is not, having regard to the nature and character of the work remaining to be performed or the materials remaining to be furnished of sufficient value to justify computation at the prices agreed upon and determined under the provisions of this agreement, it shall be competent for the Chief Engineer, in certifying the value of the work done or materials furnished for the purpose of such payment, to disregard the prices so agreed upon or determined, and to compute and certify its relative and proportionate value, having regard to the nature and character of the work remaining to be performed or materials remaining to be furnished in which case the Contractor shall only be entitled to receive ninety per cent. of the value

of the work done or materials furnished as stated in such certificate, and he shall not be paid the difference between ninety per cent. of the value of the work done or materials furnished as so ascertained and certified, and ninety per cent. of the value of such work or materials according to the prices stipulated therefor under the provisions of this agreement, until such time as the Chief Engineer, by reason of the performance of additional work or materials of greater relative value, shall certify that the Contractor is entitled to receive the same.

40. It is intended that every allowance to which the Contractor is fairly entitled will be embraced in the Chief Engineer's monthly certificates; but should the Contractor at any time have claims of any description which he considers are not included in the progress certificates, it will be necessary for him to make and repeat such claims in writing to the Chief Engineer within thirty days after the date of the despatch to the Contractor of each and every certificate in which he alleges such claims to have been omitted.

41. The Contractor in presenting claims of the kind referred to in the last preceding paragraph must accompany them with satisfactory evidence of their accuracy, and the reason why he thinks they should be allowed. Unless such claims are thus made during the progress of the work, within thirty days, as in the preceding clause, and repeated, in writing, every month, until finally adjusted or rejected, the Contractor shall have no claim upon the Commission in respect thereof.

42. The progress measurements and progress certificates shall not in any respect be taken as binding upon the Commission, or the Chief Engineer, or as final measurements or as fixing final amounts; they are to be subject to the revision of the Chief Engineer in making up his final certificate, and they shall not in any respect be taken as an acceptance of the work or release of the Contractor from responsibility in respect thereof, but he shall at the conclusion of the work deliver over the same in good order, according to the true intent and meaning of this agreement.

43. In order to prevent disputes or misunderstandings between the parties hereto in relation to any of the stipulations and provisions contained in this agreement the interpretation of or the true intent and meaning thereof or the manner of performance thereof, or of any part thereof, by either of the said parties and for the speedy settlement of such as may occur, the Chief Engineer shall be and he is hereby made, constituted and appointed sole umpire to decide all such questions and matters, including any arising regarding the amount and quantity, character and kind of work performed and materials furnished by the Contractor and all extra work and material. It is expressly declared and agreed that the Chief Engineer shall be entitled, from time to time, in reference to any or all matters, whether of interpretation or otherwise, arising under this contract, or the said specifications or plans, or relating in any manner to said work, to take legal or other professional advice, and to accept and act upon such advice to such extent as to him shall seem proper, including consultation with and accepting advice or assistance from any Consulting Engineer employed by the Commission, whether such Consulting Engineer shall or shall not be a member of the Commission. The decisions of the Chief Engineer which may from time to time be given on all questions in dispute shall be final, binding and conclusive upon both parties hereto, and no decision or certificate given by the Chief Engineer shall be questioned or set aside by either party hereto on account of any legal defect therein or on account

of any informality, omission, delay or error in proceeding in or about the same or upon any other ground, or for any other reason, or upon any pretence, suggestion, charge or insinuation of fraud or collusion or confederacy, and no objection shall be raised to any decision of the Chief Engineer in the premises or to any certificate given by him on the ground that he is in the employ of either party and is acting for or in the interest of such party or on pretence that by reason of any order or statement he may have made during the progress of the work he has disqualified himself to act between the parties hereto as above provided in all matters which may arise as aforesaid but actual fraud only shall disqualify the Chief Engineer from acting as aforesaid, and the parties hereto covenant and agree each with the other to accept each and all such decisions and abide by the same as final and conclusive.

44. This agreement is made and entered into by the Contractor for the consideration herein expressed, solely on his own knowledge, information and judgment of the character and topography of the country, its streams, watercourses and rainfalls and subject to the same, and upon information derived from other sources than the Commission, its officers or agents, of and respecting the nature and information of the property upon which the said work is to be done, or the character, quantities or location of the material required to be removed or to be used in forming the roadbed for the said railway, and the Contractor declares that he does not rely upon any information given or statement or representation made to him in connection with this agreement by the Commission or any of its officers or agents. The Contractor further declares and agrees that the plans, maps and profiles of the said work, furnished by the Commission, and the quantities estimated therefrom are approximate merely and given only for the purpose of comparison of tenders and are subject to change and alteration as herein provided.

45. The Contractor will protect, and will not remove or destroy or permit to be removed or destroyed, the stakes, buoys and other marks placed on or about the said works by any Engineer of the works, and shall furnish the necessary assistance to correct or replace any stake or mark which through any cause may have been removed or destroyed.

46. The Commission shall have power at any time to enter upon the said works to execute any work or works not included in this agreement and the Contractor shall afford all such reasonable facilities for doing such work as the Chief Engineer shall direct or require.

47. Any notice or other communication mentioned in this agreement to be notified or given to the Contractor shall be deemed to be well and sufficiently notified or given if the same be left at the Contractor's office or mailed in any Post Office to the Contractor or foreman, addressed to the address mentioned in this agreement, or to the Contractor's last known place of business.

48. All mechanics, laborers or other persons who perform labor in the construction of the works hereby contracted for shall be paid such wages as are generally accepted as current for competent workmen in the district in which the work is being performed, and, if there is no current rate in such district, then a fair and reasonable rate, and, in the event of a dispute arising as to what is the current or a fair and reasonable rate, it shall be determined by the Commission, whose decision shall be final.

49. All the works carried on under this agreement shall be subject to the provisions of any Act respecting the preservation of health on public works and to all

regulations made or to be hereafter made pursuant to any such Act, or by any other lawful authority, and applicable to such works, and to any regulations which may be adopted by the Commission in reference to sanitation or the preservation of health on the said work or any part thereof.

50. The Contractor shall provide medical aid, hospital accommodation and mail service to the satisfaction of the Chief Engineer, and shall from time to time make such changes in the medical staff, hospital accommodation and mail service as shall be required by the Chief Engineer, and if at any time the Chief Engineer shall report to the Commission that there has been any failure or default on the Contractor's part in supplying such medical aid, hospital accommodation and mail service, or in making any such changes required by the Chief Engineer, the Commission may take such steps and do such acts, and procure, engage or provide such assistance, accommodation or service as to the Commission shall seem necessary in the premises and shall be entitled to charge all expenses thereof and incident thereto to the Contractor, and to deduct same from time to time from the payments falling due to the Contractor under the Engineer's certificates or otherwise. The duties of the medical staff shall include not only the attendance on sick or injured men, but the inspection of the sanitary arrangements of all camps, dwellings and works, at least once a month, or oftener if, in the opinion of the Chief Engineer, it is necessary. In order to compensate the Contractor for such supervision he shall deduct from the wages of every man in his employment in the district or districts in which the works to be done under this agreement are situated the sum of fifty cents per month, or a proportional rate for a less period. It shall be optional on the part of the Commission, should it see fit so to do, to take over the medical and sanitary supervision of all men, camps, dwellings and works, and should it elect so to do the Contractor shall deduct from the wages of all employees as before stated the sum of fifty cents per month, or a proportional rate for a less period, and shall furnish to the Commission at the end of each month a full and correct statement of all such deductions, and the Commission shall subtract the total amount of such deductions from the moneys due or to become due to the Contractor on account of estimates for that month.

51. The Contractor shall observe and comply with all regulations made by any lawful authority and with all regulations of the Commission and instructions from the Chief Engineer, from time to time, made or given with reference to the prevention and extinguishing of fires, and shall pay all wages and other outlay occasioned by such regulations and instructions.

52. It is distinctly declared that no implied contract of any kind whatsoever by or on behalf of the Commission shall arise or be implied from anything contained in this contract, including the said specifications, tender, plans and drawings, or from any position or situation of the parties at any time, it being clearly understood and agreed that the express contracts, covenants, agreements and stipulations contained in these presents and in said specifications, tender plans and drawings are and shall be the only contracts, covenants, agreements and stipulations upon which any rights against the Commission are to be founded and it being further expressly agreed that in case of any discrepancy between these presents and anything contained in the said specifications the provisions of these presents shall govern. In case of any discrepancy appearing at any time between the specifications, profiles, plans drawings and detailed drawings or any of them the Contractor shall follow such one of them as the Chief Engineer shall in writing direct.

IN WITNESS WHEREOF the Parties hereto have herewith caused these presents to be signed and sealed on the day and year first above written.

SIGNED, SEALED AND DELIVERED,
by the CONTRACTOR, in the presence of:

(Sgd.) H. F. MACDONALD.

(Sgd.) W. A. McCAFFREY.

(Seal)

(Sgd.) C. McQUIGGE

(Seal)

By the COMMISSION, in the presence of:

(Seal)

TEMISKAMING AND NORTHERN ONTARIO
RAILWAY COMMISSION.

J. L. ENGLEHART, *Chairman*.

A. J. MCGEE, *Sec-Treas.*



One of the many beautiful spots.

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION AND THE GRAND TRUNK RAILWAY COMPANY OF CANADA.

AGREEMENTS FOR RUNNING RIGHTS, EXPRESS BUSINESS AND NIPISSING JUNCTION CONNECTION.

THIS AGREEMENT made the first day of December, A.D. 1911,

BETWEEN :

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, hereinafter called "the Commission,"

AND

THE GRAND TRUNK RAILWAY COMPANY OF CANADA, hereinafter called "the Grand Trunk."

WITNESSETH that it is agreed between the said parties as follows:—

The expression "joint section" shall mean: (1) The terminal yards of the Commission at North Bay, and (2) That portion of the Railway of the Commission extending from such terminal yards to the crossing of the Railway of the Commission at or near Cochrane Station by the Eastern Division of the National Transcontinental Railway, which parcels (1) and (2) are shown in red on the plans marked respectively (A) and (B) attached to and forming part of this agreement and identified by being signed by the Chief Engineer of the Commission and by the Chief Engineer of the Grand Trunk. The said expression "joint section" shall also be deemed to include all right of way, tracks, side tracks, bridges, stations, ticket offices, waiting rooms, dining rooms, freight sheds, warehouses, engine houses, car houses and sheds, weigh scales, turntables, water tanks, water plants, coal chutes, switches, stockyards, semaphores, signals and all other buildings and structures of any nature whatsoever erected or constructed upon the lands and premises comprised within either of said parcels (1) and (2) with all appurtenances, fixtures, plant, furniture, fittings, utensils and articles located upon or appertaining to or used in connection with the said lands and premises, and also such lands and premises and such buildings, improvements, facilities, additions and extensions as may in accordance with and pursuant to the provisions of this agreement be hereafter required, erected, provided or made for the purposes of the joint section and to enable the parties hereto to fully perform and carry on their business as herein contemplated. PROVIDED HOWEVER, that the said expression shall not include the repair shops and store buildings of the Commission at North Bay and Englehart.

In consideration of the compensation hereinafter mentioned and of the covenants and agreements hereinafter contained, the Commission has granted and by these presents doth grant unto the Grand Trunk, its successors and assigns, for the period and upon the conditions hereinafter specified the right jointly and equally with the Commission of using and enjoying the joint section with its appurtenances, and of having the business and traffic of the Grand Trunk done in and about any and all of the stations and premises comprised within the joint section, together with a full and unrestricted and unencumbered use in

common with the Commission of the joint section, including all tracks from time to time comprised within the joint section or used in connection therewith and the right to make all such track connection with the joint section as may be required for the purposes of this agreement.

TO HAVE AND TO HOLD the said rights and privileges unto the Grand Trunk, its successors and assigns, for the period of twenty-one years from the day on which the Grand Trunk begins to use the joint section, paying as compensation therefor to the Commission, its successors and assigns, the fixed yearly sum of three hundred thousand dollars, and from time to time further sums equal to four and one-half per cent. of one-half of all expenditures for betterment of the joint section which have since the first day of July, 1911, or which shall hereafter during the continuance of this agreement, be made by the Commission with the approval of the Grand Trunk as hereinafter provided, which compensation shall be payable in equal sums monthly on the twentieth day of every month in each year, of a proportionate sum for any fractional part of a month, the first payment to be made on the twentieth day of the month next following the month on which the Grand Trunk begins to run its trains over the same.

These presents are made and entered into upon and subject to the provisions and conditions hereinafter expressed and contained, for the due performance and observance of all of which on the part of each of them to be done and performed the Commission and the Grand Trunk bind themselves and each of them respectively, their successors and assigns, that is to say:

1. The Grand Trunk shall during the continuance of this agreement pay to the Commission the said compensation in the manner and at all times hereinbefore mentioned without any deduction whatsoever save for the reasons and on account of the happenings of any contingency hereinafter mentioned: all payments to be made to the Commission in gold of the present standard of value or its equivalent in Canadian currency, at the offices of the Commission in Toronto.

2. The Commission shall at all times keep up and maintain in good repair and in a thorough efficient working condition the joint section and all appurtenances thereto or to be enjoyed in connection therewith, and shall also supply and properly equip and at all times keep equipped all stations and other buildings, the right and privilege of using which is included in this grant with the requisite furniture, plant, tools and equipment. The joint section shall be kept and maintained at a standard equal to that portion of the Grand Trunk Railway between Nipissing Junction and Toronto.

3. Subject to the terms and conditions of these presents the Grand Trunk shall for all purposes of its business and traffic have under the reasonable rules and regulations of the Commission free and unlimited access to and the free and unlimited use as the same are now or may at any time hereafter be had and enjoyed by the Commission of all stations, depots, freight and ticket offices, freight sheds, baggage rooms, dining rooms, warehouses, engine houses, car houses and sheds, fuel sheds, watertanks and other buildings and structures comprised within the joint section and all fixtures, plant, furniture and furniture appertaining thereto, as well as all weighing scales, baggage and freight trucks and other articles or utensils.

4. If any of the said buildings, accommodations or facilities or anything appertaining thereto be destroyed by fire or other casualty either in whole or in part the Grand Trunk shall have no claim against the Commission for damages on account of loss of accommodation but shall have, free of any charge other than

the aforesaid compensation, a proportionate share of such accommodation as the Commission may be able to provide for the purpose of its business and traffic and of the new accommodations so soon as the same may be provided, and except as may from time to time be otherwise agreed upon between the parties the reconstruction of such buildings and the providing of accommodation in accordance with the former design and to the same extent as previously shall be proceeded with by the Commission at its own cost with all reasonable despatch. All buildings and erections and all furniture and equipment forming part of or comprised within the joint section shall be insured against loss or damage by fire so far as this can be done and the cost of so doing shall be part of the working expenses hereinbefore referred to. Neither party shall be required or be liable to insure any property of the other party, nor save as aforesaid shall the working expenses include any outlay on account of insurance.

5. Except where otherwise herein provided the parties hereto shall have and enjoy in all respects equal rights upon and to the use of the joint section and the trains of the Grand Trunk shall in every respect be treated by the officers, agents and employees in charge or control of, or engaged upon the joint section, as trains of a similar class of the Commission and shall equally have preference over trains of an inferior class belonging to either of the parties, the superior class trains being in all cases given preference over trains of an inferior class. The Grand Trunk shall have a right to run over the joint section all classes of trains, passenger, mixed, freight and other trains. In case of doubt between the trains of the Commission and the trains of the Grand Trunk of the same class, the trains of the Commission shall under the established rules have the preference. The main tracks of the joint section shall as far as practicable be kept unobstructed for the use of the regular trains of both parties.

6. The schedule for the arrival and departure of the trains of the parties hereto at and from North Bay and at and from the junction with the Eastern Division of the National Transcontinental Railway at or near Cochrane and at and from intermediate stations on the joint section shall be fixed from time to time by agreement between the proper officers of the parties hereto, having due regard to the necessity on the part of the Grand Trunk to make such through train schedules with the Grand Trunk Pacific Railway Company as will enable those Companies to meet competition. Reasonable notice of any desired change in such schedule shall be given by the proper official of the Grand Trunk to the proper officer of the Commission, who shall thereupon make and furnish as far as it is practicable a proper and satisfactory schedule or time card for the movement of all trains of both parties on the joint section. All schedules shall give equal rights to the trains of both parties of a similar class as provided by clause 5 hereof. In preparing such schedules and fixing the speed of the trains of the Grand Trunk any reasonable request of the officials of the Grand Trunk made from time to time shall be given effect to. In the event of any dispute arising as to any schedule the matter in dispute shall if the parties fail to agree, be referred for determination to arbitrators appointed in the manner hereinafter provided. When the trains of the Grand Trunk are running behind time their movements shall be directed and controlled in the same manner as trains of a similar class of the Commission when out of schedule time.

7. The joint section, subject to the general control of the Commission, shall be in charge of the Superintendents of Traffic and Maintenance appointed by the Commission and who shall be acceptable to and approved by the Grand Trunk and be subject to dismissal for good cause upon the written demand of the

Grand Trunk. They shall have superintendence over the management and operation of the joint section and over all persons from time to time employed thereon or engaged in any service or duty connected therewith. The powers and duties of each such Superintendent shall be clearly defined by the Commission and shall be exercised and performed in a reasonable and just manner as between the parties and without discrimination or preference in favor of or against either. The Superintendents will comply with and carry out any instructions given by the proper officer of the Grand Trunk in regard to the movement of its trains, engines or cars, or the handling of its traffic, so far as it is practicable so to do, due regard being had to the rights of the Grand Trunk under this agreement. They shall within the scope of the defined powers conferred upon them respectively, have the control of all subordinate officers and employees engaged in or about the operation, maintenance, renewal and repair of the joint section and subject to the terms hereof, also have control of all enginemen, trainmen and other employees of either of the parties while engaged in the handling of trains, cars or engines upon the joint section. Any officer or employee from time to time employed in the operation, maintenance, repair or upkeep of the joint section shall, upon the written request of the Chief Executive officer of the Grand Trunk, be removed for cause.

8. Except as herein otherwise provided, the engines, cars and trains of the Grand Trunk shall be manned exclusively by employees of the Grand Trunk who shall while upon the joint section be subject to the rules and regulations hereinafter provided for and be under the direction of the Superintendent of Traffic of the Commission so far only as the movements of the engines, cars and trains are concerned. The rules and regulations for the running and working of trains and for the guidance and conduct of all employees of either or both parties while running over or being upon the joint section and making use in common of the tracks, buildings and appurtenances thereof, and so far as practicable all rules governing the use of the joint section and all police regulations generally shall be those prescribed by the Commission for the government of its own employees. Special rules applicable to the joint section and due to the requirements of this agreement may from time to time be agreed upon by the Executive Officers of both parties hereto and shall thereupon be enforced by the proper officers, but no such rules shall interfere in any way with the full enjoyment of the rights of either of the parties hereunder.

9. The Commission shall construct the necessary switch connection or connections between the tracks of the Commission and those of the Eastern Division of the National Transcontinental Railway at the point as indicated on the plan attached hereto and the cost thereof and all expenses of and incidental to the maintenance, operation, repair and renewal thereof shall be included in and form part of working expenses under this agreement.

10. The Superintendents of the Commission respectively having charge of the maintenance and operation of the joint section and all train despatchers, station agents, clerks, telegraph operators, station baggagemen, switchmen, signalmen, gatemen, flagmen, bridge-tenders, trackmen and all others employed upon or engaged in the maintenance, repair or renewal of the joint section or any part thereof or in controlling the movement of trains over the same (but not including enginemen or trainmen in the exclusive employ of one of the parties hereto) and generally all agents or employees whose salaries or wages in whole or in part are included in the working expense account hereinafter provided for shall, though paid by the Commission in the first place, be deemed to be joint agents

or employees of both parties hereto and shall render equally to each party and with strict neutrality such service as they may be called upon to render or should render within the scope of their respective positions or employment and shall be subject to dismissal if they decline, neglect or refuse to render such assistance and service to the Grand Trunk as such employees are usually called upon to render, or be or become incapable to fully and satisfactorily perform their respective duties or for other good cause shown by the Grand Trunk to the Commission. Every request of the Grand Trunk under this clause shall be fully and justly dealt with by the Commission and any decision of the Commission in respect therefore shall be subject to appeal to arbitrators appointed as hereinafter provided.

11. The expenses chargeable to the maintenance and repairs of the joint section herein referred to as "working expenses" shall be payable by the Commission in the first instance and shall include:

(a) The cost of repairs and renewals of tracks and structures comprised within and forming part of the joint section and required for the proper maintenance thereof including in the cost transportation (not at tariff rates but at the rate of five mills per ton per mile) of all materials required therefor and the labor incidental thereto PROVIDED that the market value during the month in which the same are released of the rails, iron and other materials renewed or replaced shall be credited to working expenses. PROVIDED FURTHER that any additional cost of rails due to an increase in the rolled weight of the new rails over that of the old shall be charged to capital account.

(b) The cost of maintenance of any works for the protection of the public and the trains and cars of the parties hereto respectively at highway or railway crossings on the joint section where protection may be required by law or where it may be deemed necessary by the parties hereto.

(c) The cost of maintenance and operation of the switches connecting the joint section tracks with those of the Eastern Division of the Transcontinental Railway at or near Cochrane and with the line of the Commission between North Bay and Nipissing Junction to be constructed under the terms of a certain other agreement between the parties hereto dated the first day of May, 1911, including the cost of the maintenance and operation of any interlocking plant or protective appliances, if any, in connection therewith payable by the Commission.

(d) The cost of the maintenance of any works carried out in pursuance of the orders of any legally constituted authority affecting the joint section or any part thereof.

(e) Insurance premiums if any payable in respect of structures on the joint section.

(f) The cost of fuel and supplies furnished for, and the proper wages of the crews engaged in, operating switching engines on Portion (1) of the joint section and at Englehart and in the making up of trains as provided in paragraph 34; the entire salaries, wages and expense account of all officers and employees engaged exclusively in the maintenance, repair and renewal of the joint section or in controlling the movements of engines and trains over the same (not however including engine-men and trainmen in the exclusive employ of either party): a fair proportion of the salaries and wages of all such employees as may be partially or occasionally engaged in such work and in respect of general supervision, a reasonable proportion of the salaries and expense account of the Commissioners and of the salaries, wages and expense accounts paid by the Commission to its Superintendents of Traffic and Maintenance having charge of the joint section and

to its Secretary and Auditor and to the staffs of such Superintendents. Secretaries and auditor, which staffs shall include subordinate officers: such proportions to be from time to time adjusted between the parties as the conditions may warrant, or failing adjustment, to be determined by arbitrators appointed as hereinafter provided.

12. Accounts called "Terminals working expense account" and "Main track working expense account" shall be kept by the Commission and monthly statements rendered to the Grand Trunk as early in each month as reasonably possible, showing separately in such detail as is reasonable and proper the working expenses for the preceding month of portions (1) and (2) of the joint section. PROVIDED HOWEVER that the working expenses of Englehart yard shall be shown separately and be divided upon the same basis as the working expenses of portion (1) Such statements shall as to portion (1) of the joint section include, in addition to such other details as are reasonable and proper, particulars:

(a) Of every car which formed part of any train and of the locomotive hauling such train which arrived at and of every car which formed part of any train and of the locomotive hauling such train which departed from portion (1) of the joint section or from Englehart yard during the preceding month each car and each locomotive being counted once on arriving at and once on leaving North Bay or Englehart yard as the case may be, PROVIDED HOWEVER that any empty car entering portion (1) of the joint section or Englehart yard for the purpose of taking up passengers or leaving the same after discharging passengers or the engine or engines moving the same shall not be counted, and PROVIDED ALSO that cars forming part of through trains and not set out at portion (1) of the joint section or at Englehart yard shall be counted but once: every revenue switch movement to be counted as one car.

(b) Of the total number of tons of freight handled in and out of the freight house or freight shed (including transfer platform) at North Bay during the preceding month, showing separately the number of tons so handled for each of the parties hereto.

(c) Of the total number of engines despatched from the engine houses at North Bay and Englehart respectively during the preceding month, showing separately the number of engines so despatched for each of the parties hereto.

13. The Grand Trunk shall within sixty days of the receipt of such statements respectively pay to the Commission as its proportion of the working expenses of portion (1) (including Englehart yard) of the joint section during the preceding month as follows:

(a) Such proportion of the cost of maintaining and operating the said engine houses at North Bay and Englehart respectively, during the preceding month as the number of engines despatched for the Grand Trunk from such engine house during such month bears to the total number of engines despatched therefrom, during such month.

(b) Such proportion of the cost of maintaining and operating the freight shed at North Bay during the preceding month as the number of tons of freight handled in and out of the freight shed (including transfer platform) for the Grand Trunk during such month bears to the total number of tons of freight handled in and out of said freight shed (including transfer platform) during such month.

(c) Such proportion of the working expenses (as hereinbefore defined) incurred in connection with the station yard and tracks included in portion (1) of the

joint section and Englehart yard respectively, during the preceding month as the number of cars arriving at and of cars departing from North Bay and Englehart yard respectively in the trains of the Grand Trunk during such month and using the said yards and counted in accordance with the provisions of the preceding clause shall bear to the total number of cars so counted arriving at and of cars departing from North Bay and Englehart yard respectively during such month and using the joint yards.

14. The Grand Trunk shall within sixty days of the receipt of such statements respectively pay to the Commission in respect of portion (2) of the joint section such proportion of the working expenses shown as having been expended in respect of portion (2) of the joint section during the preceding month as the total engine and car miles made upon said portion (2) of the joint section during the month covered by such statement by the engines and cars of all classes, both loaded and empty, comprised in the trains of the Grand Trunk, shall bear to the total engine and car miles made upon said portion (2) of the joint section during the preceding month by all engines and cars of all classes both loaded and empty.

15. The accounts referred to in the preceding paragraph may be rendered by delivering the same to the General Auditor of the Grand Trunk at Montreal or to such other officer as may be designated to the Commission by the Grand Trunk from time to time or by sending the same through the Post Office, postage prepaid, addressed accordingly.

16. From time to time and at all times during the continuance of this agreement the Commission will allow proper inspection by the officers and agents of the Grand Trunk of all pay-rolls, books, accounts, returns and vouchers for the purpose of checking or verifying accounts rendered by the Commission to the Grand Trunk in pursuance of this agreement. The Grand Trunk shall have the right from time to time to employ an Auditor to investigate the accuracy of any such account or accounts and the Commission shall at all times afford proper facilities for such investigation. Neither the acceptance of any such account or accounts nor the payment thereof by the Grand Trunk shall prejudice its right to an audit or verification, and if upon such audit or verification or at any time it shall be found that the Grand Trunk has paid or allowed to the Commission any sum or sums of money which under the provisions of this agreement it is not liable to pay or which should not have been allowed the Grand Trunk shall be entitled to demand and collect such sums.

PROVIDED HOWEVER that the Commission shall not be bound to accept the rulings of any such Auditor employed by the Grand Trunk and that in case the parties cannot agree as to any such questions of account the same shall be determined under the provisions for arbitration hereinafter contained.

17. Each party will allow the other proper inspection by its agents of all books, accounts, returns, vouchers and reports relating thereto for the purpose of checking and verifying any and all accounts which shall be rendered by the party against whom inspection is sought in respect of any loss, injury or damage which the last named party may suffer or sustain and which under the terms hereof is to be assumed or borne in whole or in part by the party seeking inspection and also for the purpose of checking and verifying all statements and returns of the number of engines and cars of either of the parties transported on or over the joint section or any part thereof and the tonnage handled in the terminal yard or the engines using the engine houses or of ascertaining any information or particulars to which the other party shall be entitled hereunder.

18. The Grand Trunk shall be entitled to carry on through and interchanged express business on the joint section upon the terms of such agreement in respect thereto as shall be entered into between the Commission and the Canadian Express Company and shall be entitled to do freight, passenger and mail business over the joint section as follows:

(a) All passenger and mail business and all freight business originating on the Grand Trunk or Grand Trunk Pacific Railway or their respective connections and carried over the joint section on the trains of the Grand Trunk for furtherance over the lines of the Grand Trunk or Grand Trunk Pacific Railway or their respective connections, shall be Grand Trunk business and shall be carried at rates lawfully fixed by the Grand Trunk irrespective of the Commission and all revenue therefrom shall belong to the Grand Trunk.

(b) All other business which under the terms of this agreement the Grand Trunk is authorized to carry on on the joint section is agreed and declared to be local business of the Commission and the right of the Grand Trunk to carry on the same is subject to its being carried on so far as the joint section is concerned at the rates lawfully fixed by the Commission irrespective of the Grand Trunk.

(c) Subject as aforesaid the Grand Trunk shall be entitled to transport in its trains over the joint section and to deliver at North Bay, Cochrane or any intermediate point on the joint section all cars containing freight originating on the Grand Trunk or Grand Trunk Pacific Railway or their respective connections consigned to North Bay, Cochrane or to any one intermediate point on the joint section or to any point or points on branch lines connecting with the joint section: and to receive at North Bay, Cochrane and intermediate points and to transport in its trains over the joint section or any part thereof cars containing freight consigned to points on the lines of the Grand Trunk or Grand Trunk Pacific Railway or their respective connections. PROVIDED that such freight shall be carried subject to the payment by the Grand Trunk to the Commission in respect thereof of twenty-five per cent. of the rates from time to time lawfully fixed by the Commission as aforesaid as payable for the carriage of such freight over the joint section or the portion thereof over which such freight shall be so carried by the Grand Trunk in its trains. PROVIDED FURTHER that this shall not be construed as entitling the Grand Trunk to do what is commonly known as local way freight business, and PROVIDED FURTHER that on portion (?) of the joint section the Grand Trunk shall not be required to place cars at freight houses or on private sidings or on public team tracks when in their judgment such work would cause objectionable delay to Grand Trunk trains, but this work shall in such event be done by the engines and cars of the Commission.

(d) Subject as aforesaid the Grand Trunk shall be entitled to carry on its passenger trains passenger traffic and mails reaching North Bay via Grand Trunk Railway or Cochrane via Grand Trunk Pacific Railway for carriage to local points on the joint section or *vice versa* and passenger traffic and mails originating at Cochrane for carriage to North Bay without stop over or *vice versa* subject to the payment by the Grand Trunk to the Commission in respect thereof of twenty-five per cent. of the revenue received by the Grand Trunk for such mail service and twenty-five per cent. of the rates from time to time lawfully fixed by the Commission as payable for the carriage of such passenger traffic over the joint section or the portion thereof over which such passenger traffic shall be so carried by the Grand Trunk upon its trains.

(e) Subject as aforesaid the Grand Trunk shall further whenever it shall be

impracticable to prevent the carriage of such traffic on its trains be entitled to carry on its passenger trains:—

(1) Passenger traffic and mails reaching joint section by the Canadian Pacific Railway Company or by any carrier other than the Grand Trunk or the Grand Trunk Pacific Railway Company for carriage to any point on the joint section, including Cochrane and North Bay;

(2) Passenger traffic and mails originating at North Bay or at Cochrane destined to any point on the joint section and *vice versa*;

(3) Local passenger traffic and mails between points on the joint section.

SUBJECT to the payment by the Grand Trunk to the Commission of seventy-five per cent. of the revenue received by the Grand Trunk for such mail service and seventy-five per cent. of the rates from time to time lawfully fixed by the Commission as payable for the carriage of such traffic over the joint section or the portion thereof over which such passenger traffic shall be so carried by the Grand Trunk upon its trains. PROVIDED HOWEVER that if the Commission shall at any time by written notice request the Grand Trunk to carry any such passenger traffic or mails upon any specified passenger train or trains of the Grand Trunk, the revenue received by the Grand Trunk for such passenger and mail service so carried on such specified train or trains shall, until the withdrawal in writing of such request be divided as follows: twenty-five per cent. thereof to the Commission and seventy-five per cent. thereof to the Grand Trunk.

19. The Commission shall at all times keep on sale at all stations on the joint section or other agencies for the sale of tickets an adequate supply of tickets of the issue of the Commission for all points on the Grand Trunk, its allied lines and connections, and the baggage of passengers using any such tickets from a point on the joint section shall be checked through to destination.

20. Each of the parties hereto assumes all responsibility for accidents or casualties upon or to its own trains and to its passengers, freight and employees, by reason of any imperfection of the track or misplacement of switches by its own or a joint employee or by strangers and for damages for live stock killed or injured or by reason of injuries that may occur to persons walking upon the track or at highway crossings (if any liability therefor) or from any other cause (aside from or except collision between the trains of the parties hereto or the negligence of an exclusive employee of the other party) and no such accident or casualty shall give either party a right of action or claim against the other, it being the intention and design that each party shall be responsible for its own trains, passengers, freight and employees for the conduct of its own and joint employees as regards such trains, passengers, freight and employees, and generally, except when the other party or its exclusive employees are at fault.

21. In case of injury to persons or property not in transit upon the trains of either party or of any damage by fire to the joint section or lands adjoining the same caused by or resulting from the operation of the trains of such party upon the joint section the party at fault shall without regard to the physical condition of the joint section or its appurtenances pay the full amount of the liability. PROVIDED that in the event of its being impossible from want of evidence or otherwise to fix the liability in any such case upon one of the parties hereto the amount of such liability, including all costs, shall be apportioned between and be assumed and borne by the parties in the proportion for each that the number of its cars passing over the joint section at the point where the damage or injury occurred during the current month in which such damage or injury happened bears to the

whole number of cars of both parties passing over such point during such current month. PROVIDED FURTHER HOWEVER that the Commission shall not be bound to contribute toward any loss or damage or costs which the Grand Trunk shall sustain or be put to by reason only of any statutory liability irrespective of negligence at any time lawfully imposed upon the Grand Trunk, but not so imposed upon the Commission. In the event of loss, damage or injury occurring or being caused to persons or property upon or by the trains of either party the proper officer of the party upon or by whose trains such loss, damage or injury occurred or was caused shall settle the same and in all such cases of settlement any release executed shall be so made as to include and free and discharge both of the parties hereto from all further liability to the claimant.

22. In all cases of collision between the trains of the parties hereto the party whose employees or trains are at fault and were or shall be found to have been the occasion of the collision shall be responsible to the other party for all damages caused by or resulting from such collision, but in case the proper officers of the parties hereto are unable to agree as to which was at fault or as to the cause of the collision, or as to the amount of the damage done, the questions arising in respect thereto shall be referred to arbitration in the manner hereinafter provided for the settlement of differences and disputes and the party hereto which shall be found responsible shall indemnify, save harmless and defend the other from and against all claims, costs and proceedings resulting from or growing out of such fault, and the party so adjudged liable to pay the other any damages in respect thereof shall abide by and forthwith perform and comply with the award of the arbitrators which shall in all cases be final and shall terminate the controversy between the parties.

23. All loss or damage to person or property upon the trains of either of the parties hereto caused by the negligence or fault of any joint agent or employee of the parties hereto in the course of his employment shall be borne and paid by the party upon whose train such loss or damage occurs, but this clause shall not give to any third party any claim or cause of action.

24. The parties hereto respectively shall indemnify, save harmless and defend each other from all loss, damage or injury which either party agrees hereunder to assume, and from all claims, costs and proceedings resulting from and arising out of or payable by reason of any such loss, damage or injury and in case proceedings be commenced against either party hereto for any loss, damage or injury which the other agrees hereunder to assume or bear, the party proceeded against may give notice thereof to the other and thereupon such other party shall at once assume the defence of such proceedings and save the party proceeded against harmless from all loss and costs. In case proceedings are commenced against both parties for loss, damage or injury which is to be assumed or borne by one of them, such one shall assume the defence of such proceedings and save the other party hereto harmless from all loss and costs. In case proceedings are commenced against one party hereto for loss, injury or damage, for which both parties are liable to contribute hereunder, the other party shall join or assist in defending and any costs and damages awarded shall be borne in the proper proportion provided for hereunder according to the circumstances.

25. In the event of the destruction of or damage to any of the tracks, depots, bridges, culverts or other structures on the joint section as a result of the carelessness or by reason of the negligence of one of the parties hereto, the expense (in excess of the amount of insurance received) of replacing or renewing the property

of the same general character as that destroyed shall be entirely paid by the party in fault. PROVIDED that in case by consent of both parties any new work substituted for that damaged or destroyed shall be of a better character than the old and can be considered as a betterment, so much of the cost as would restore the property to its former condition shall be paid by the party at fault as above provided and the balance of the cost shall be added to capital account subject to the payment by the Grand Trunk of a sum equal to interest at the rate of four and one-half per cent. per annum upon one half thereof during the continuance of this agreement as hereinbefore provided. The cost of all betterments exceeding the sum of two hundred dollars, or of additional works such as second main track, side tracks, etc., on the joint section made by the Commission because of increased traffic for the more economical operation of trains, or under the provisions of any statute, order or by-law binding upon the Commission, shall be added to and included in the capital account upon one-half of which the Grand Trunk shall pay a sum equal to four and one-half per cent. per annum as aforesaid. All individual betterments costing two hundred dollars or less shall be charged as part of working expenses. For the purpose of this clause any work or structure of a permanent character which at any time during the continuance of this agreement is constructed pursuant to the direction or order of any Board or authority duly constituted under the laws of the Dominion of Canada or of the Province of Ontario or pursuant to the provisions of any Act of the Parliament of Canada or of the Legislature of the Province of Ontario shall be regarded as a betterment and the cost thereof be added to and included in the capital account.

26. Neither of the parties hereto shall have any claim or right of action against the other by reason of any interruption or delay to traffic on the joint section by the destruction of or damage to any of the tracks, structures or facilities covered by this agreement howsoever same may be caused.

27. If any additional buildings, tracks or facilities or any betterments or improvements on the joint section or any part thereof or any additional lands therefor be in the opinion of either of the parties required for the reasonable purposes of the business of both or either of them, the parties shall consult together with a view to agreeing with reference thereto, and in case the parties agree to any such additional buildings, facilities, betterments, or improvements or additional lands, the cost thereof less the then value of all iron and other materials replaced, shall be charged to capital account, and a sum equal to interest at the rate of four and one-half per cent. per annum on one half of such cost shall be payable by the Grand Trunk during the continuance of this agreement as additional compensation for the rights granted hereunder. In case either party shall desire to extend the joint section or to secure additional lands and construct thereon buildings or other facilities and the other party shall decline to have such extension made on joint account, or in case either party shall desire additional buildings or facilities or to make further betterments on the joint section and the other party shall decline to have same constructed, provided or made on joint account, then such extensions may be made or such facilities provided or such construction proceeded with by the party desiring the same, and such extension, facilities or constructions shall not be deemed part of the joint section but shall belong to, and shall be maintained and operated by, and at the exclusive expense of the party making same. The Grand Trunk shall have the right to connect any track or tracks laid upon any such additional lands required by that Company with the tracks included within the joint section. PROVIDED HOWEVER that if the party who shall have so declined to

have said extensions, construction, facilities or betterments constructed, provided or made on joint account shall afterwards at any time during the continuance of this agreement desire to have the joint use of such extensions, constructions, facilities and betterments or any part thereof, such party shall have the right thereafter to the joint use of the same accordingly upon such terms, if the parties cannot agree, as shall be fixed by arbitration as hereinafter provided; whereupon such extensions, constructions, facilities and betterments shall be covered by such agreement between the parties or by arbitration as aforesaid and become part of the joint section and be governed in all respects by the terms of these presents so far as the same shall be applicable thereto. PROVIDED that nothing in this paragraph contained shall entitle the Grand Trunk to construct any buildings or other structures, or to make, provide or furnish any additional facilities or betterments upon the joint section without the consent of the Commission. PROVIDED FURTHER, however, that should the Grand Trunk at any time request the Commission to extend any passing track already constructed, or to have additional passing tracks constructed on the lands of the Commission, which the Commission shall not be willing to make or construct on joint account, the Grand Trunk shall be entitled to have such question determined by arbitrators appointed as hereinafter provided, and in case the arbitrators shall determine that any such extension or additional passing track is required the same shall be made or constructed by the Commission and the cost thereof shall be charged to capital account or otherwise and the cost of maintenance and operation be borne in such manner as shall be proper under the provisions hereof, due regard being had to the decision of said arbitrators.

28. The Grand Trunk shall pay all mileage allowances or charges at the usual and customary rates for all cars owned by the Commission hauled by the Grand Trunk in its trains over portion (2) of the joint section and shall also be liable for and pay directly to the parties or Companies (other than the Commission) entitled thereto all per diem or mileage allowances or other compensation at the usual and customary rates for the services or detention of all cars of such other parties or Companies hauled by the Grand Trunk in its trains on the joint section. Cars will be considered as delivered by the Grand Trunk to the Commission on portion (2) of the joint section when set out of trains for unloading, and shall be considered as returned to the Grand Trunk when reported to the proper officer in charge of car movement on the joint section as ready for movement by the Grand Trunk at the same point. The Commission shall not pay or be liable for any mileage per diem charge or other compensation for the services or detention on portion (1) of the joint section of any engines or cars arriving at or leaving said portion (1) of the joint section in the trains of the Grand Trunk and not intended for delivery to the Commission but the Grand Trunk shall pay and be liable for and hereby covenants to indemnify the Commission against any claim or claims for any mileage per diem charge or other compensation for the services or detention of such engines or cars. PROVIDED HOWEVER that in the case of cars to be delivered by the Grand Trunk to the Commission, the Commission shall assume such mileage per diem charge or other compensation from the time that the same are delivered on portion (1) of the joint section, and in case of cars to be delivered by the Commission to the Grand Trunk, the Grand Trunk shall assume such mileage per diem charge or other compensation from the time same are delivered on portion (1) of the joint section.

American Railway Association Code of Car Service Rules shall govern as to what constitutes delivery of a car.

The Commission shall assume all per diem or mileage charges or other compensation payable upon cars engaged in revenue switching movements.

29. The Commission shall upon the request of the Grand Trunk do with all reasonable despatch all ordinary running repairs required upon the engines and rolling stock of the Grand Trunk used upon the joint section, charging therefor actual cost of materials used and labor performed in making such repairs plus ten per cent. of the cost of such material and labor. PROVIDED that the Grand Trunk may supply its own material if it so desires.

30. If so requested by the Grand Trunk the Commission shall, subject to the limitations of its facilities, furnish daily to the engines of the Grand Trunk such amount of coal as may be necessary for such engines, and the Commission shall charge and the Grand Trunk shall pay for such coal so supplied the cost price thereof to the Commission at the point of delivery to the Grand Trunk plus ten cents per ton additional. The Commission shall further furnish daily to the engines of the Grand Trunk such water as may be necessary for such engines, the expense of the supply of water to both parties to be reckoned as part of the working expenses and to be charged and payable accordingly.

31. The Commission shall keep or have kept a statement of all supplies, coal, sand, oil, waste, tallow, etc., furnished to the Grand Trunk for its engines and cars and the Grand Trunk shall be charged the actual cost of all supplies, etc., so furnished. The term "Cost" used in this paragraph shall mean the current market price in Canada for the month in which they are furnished as shown by the invoice of such supplies plus ten per cent. to cover handling, supervision, inspection, accounting, freight charges and other incidental expenses. PROVIDED that should the Grand Trunk desire to provide or furnish its own coal, supplies, sand, oil, waste, tallow, etc., it may do so, in which event it will be charged only the cost of handling the same. For the purpose of accounting between the Commission and the Grand Trunk the cost of transportation over the joint section by either party of fuel and supplies of all kinds for the use of the other shall, until otherwise agreed, be settled on the basis of five mills per ton per mile.

32. The Grand Trunk shall at all times have the right to the use for its locomotives of such stalls in the engine houses of the Commission as the number of engines actually engaged in the service of the Grand Trunk on the joint section may entitle that Company to use with the like accommodation and facilities in all respects as may be provided by the Commission for its own engines, the understanding being that the stalls in the engine houses of the Commission shall be allotted and be available for the use of each party in proportion to the number of engines actually engaged in the service of each party upon the joint section. It is also understood that the engines of the Grand Trunk shall while in the engine house be turned, cleaned and fitted for the road and that engine despatch shall include so far as required cleaning below running board, turning and housing and labor of coaling and watering, but that cleaning of engines above running board, supplies required for cleaning engines, repairs and all supplies required for repairs and all stores, small or large, that may be required, shall be paid for at cost, which shall include cost of handling.

33. The Commission shall, if requested so to do by the Grand Trunk, clean the passenger cars used in the business and traffic of the Grand Trunk upon the joint section and heat and supply them with water, ice, fuel, oil, waste and small stores, and the Company shall pay to the Commission the cost to the Commission of the material, labor and stores so furnished. The term "Cost" used in this paragraph

shall mean the current market price in Canada for the month in which they are furnished as shown by the invoice of such supplies and stores, plus ten per cent. to cover handling, supervision, inspection, accounting, freight charges, and other incidental expenses. The charge for labor shall be that actually paid by the Commission. PROVIDED that the Grand Trunk may at any point or points on the joint section, or at any time or times, perform the whole or any part of the above service, with its own employees, without being liable to any charge therefor by the Commission.

34. The Commission shall provide the switch engines and crews required to perform switching service in the North Bay and Englehart yards and for making up all trains and shall be entitled to charge to working expenses a reasonable sum per month for the use of such switch engine which sum shall be exclusive of fuel and supplies required for such engine and of the proper wages of the crew, which shall be included in the working expenses of portion (1) of the joint section as provided in paragraph 11 (f). It is understood and agreed that the Grand Trunk may at its option and upon the same terms from time to time provide such engines and crews to an extent sufficient to equalize the service furnished by the Commission. Such reasonable sum shall be fixed from time to time by the parties or in case of failure to agree shall be determined by arbitration as hereinafter provided.

35. Notwithstanding anything contained in these presents the Commission shall have the right at any time and from time to time during the continuance of this agreement, to grant to any other Railway Company or Companies any right of use or otherwise with respect to the joint section or any part or parts thereof. PROVIDED ALWAYS that the same shall not impair the facilities hereby agreed to be furnished to the Grand Trunk or prevent the Grand Trunk from enjoying the use of the joint section or from operating trains over the same and every part thereof as herein contemplated. AND PROVIDED FURTHER that no such right shall be granted to any other Company on more favorable terms than those hereby secured to the Grand Trunk. AND IT IS AGREED that in case the Commission shall grant any such right to any other Railway Company or Companies the Grand Trunk shall be entitled to the benefit of and credit for one-half of all rentals or other consideration in the nature of rentals received from any such other Railway Company or companies for such rights and the proportion of working expenses payable by the Grand Trunk under paragraphs 12, 13 and 14 hereof, shall thereupon be reduced proportionately.

36. All receipts and revenues for facilities afforded or for services rendered to any party other than the parties hereto or to any other Railway Company or Companies as in the preceding paragraph provided upon or in connection with the joint section shall enure to the benefit of the parties hereto in equal shares. The statements to be rendered monthly by the Commission to the Grand Trunk under paragraph 12 hereof shall show in detail such receipts and revenues and also any rentals or other consideration in the nature of rentals received from any other Railway Company.

37. Equal facilities shall be afforded upon the joint section to each of the parties for advertising their respective business and that of their connections.

38. The Commission having heretofore entered into an agreement with the Canadian Pacific Telegraph Company in respect of commercial business, which agreement expires 1st August, 1915, it is agreed that in the meantime the Grand Trunk shall have the right to use the poles and crossarms of the Commission for

stringing telegraph wires, not exceeding six in number, subject to the payment to the Commission therefor of a sum to be agreed upon by the parties hereto or in the event of their failure to agree to be determined by arbitration as hereinafter provided. PROVIDED that such wires shall be used exclusively for the railroad business of the Grand Trunk and Grand Trunk Pacific and shall not be used directly or indirectly for commercial business. It is declared to be the intention of the parties to enter into a new contract with reference to telegraph service after the expiry of the present agreement of the Commission with the Canadian Pacific Telegraph Company, but failing the making of such new agreement it is declared that the right hereby reserved to the Grand Trunk to string its wires on the poles and crossarms of the Commission shall continue during the continuance of this agreement, or until another agreement in the premises is entered into between the parties.

39. In case of any wrecks of Grand Trunk trains, engines or cars on the joint section during the continuance of this agreement the necessary clearing of the track shall be done by the Commission through its wrecking crew and appliances, and save where under the terms of these presents the Commission shall be bound to bear the loss incident to any such wreck, the actual cost thereof shall be payable by the Grand Trunk to the Commission.

40. All moneys other than the compensation aforesaid, payable by the Grand Trunk to the Commission hereunder, including proportion of freight and passenger earnings for local traffic of the Commission as hereinbefore described, the proportion of all working expenses payable by the Grand Trunk as aforesaid, the cost of all services and supplies as aforesaid for the use of telegraph poles and crossarms as aforesaid and the cost of clearing wrecks as aforesaid shall be payable by the Grand Trunk to the Commission at the office of the Commission in Toronto in gold or its equivalent as aforesaid monthly within sixty days after the delivery of statements thereof as aforesaid. The amount shown as payable by the statements so rendered shall be so paid leaving all mistakes, errors and omissions for subsequent adjustment. In reference to all payments to be made by the Grand Trunk to the Commission hereunder for compensation or otherwise time is declared to be of the essence of this agreement: and in case the Grand Trunk shall fail to make any payment or payments herein stipulated to be made when and where same shall become due and payable within sixty days after demand in writing requiring payment of the same shall have been made by the Commission to the Grand Trunk, then and in that case this agreement shall at the option of the Commission cease and be null and void, and the Commission may at once and without notice exclude and remove the trains, engines and other property of the Grand Trunk from the joint section and from every part thereof. PROVIDED HOWEVER that this clause shall not be construed as preventing either party from recovering from the other any moneys payable by the one to the other under the terms hereof.

41. IT IS AGREED that subject to the Grand Trunk procuring within three years from the date hereof the necessary legislation authorizing the same (to which legislation the Commission hereby assents) the grant of rights and privileges hereby made shall be for the term of twenty-five years (instead of twenty-one years) from the day on which the Grand Trunk begins to use the joint section, with the option to the Grand Trunk on its giving to the Commission not less than one year's notice in writing of its desire to secure the same, of the renewal of such rights and privileges for a further period of twenty-five years on the terms and conditions set out in these presents: PROVIDED that the compensation in respect of such additional

term of twenty-five years shall be such compensation as shall be agreed upon between the parties, or in case of their failure to agree, as shall be fixed by arbitration as hereinafter provided. AND IT IS EXPRESSLY AGREED that such arbitration may take place at any time after the expiration of the first twenty-four years of the original term. In case such legislation shall be procured by the Grand Trunk within said period of three years from the date hereof this agreement shall thereupon be read and construed as if the said grant and privilege had been made for said period of twenty-five years instead of for the period of twenty-one years with the option for renewal for another period of twenty-five years as aforesaid.

42. The Commission hereby COVENANTS with the Grand Trunk that the Grand Trunk making the payments herein agreed to be made and performing, observing and fulfilling the covenants and the terms and conditions herein contained and on the part of the Grand Trunk to be performed observed and fulfilled, shall from time to time and at all times hereafter during the term of this agreement have and enjoy the joint use equally with the Commission of the joint section and of all the other rights and privileges therein and with respect thereto granted and provided for by this agreement according to the terms and conditions herein contained without interruption or interference by the Commission or any other party or parties whomsoever lawfully claiming under the Commission.

43. In case of any notice to be given to or by the Commission hereunder or in case of any demand to be made by or on behalf or upon the Commission hereunder the same except where any other mode shall be indicated by the context shall be deemed to have been duly given or received when given or received in writing by either the Chairman or Secretary of the Commission for the time being, and in case of any consent required to be given by the Commission the same shall unless otherwise required by the context be given by the Chairman for the time being of the Commission and shall for all purposes be binding upon the Commission: and in case of any notice to be given to or by the Grand Trunk hereunder or in case of any demand to be made by or on behalf of or upon the Grand Trunk hereunder, the same, except where any other mode may be indicated by the context, shall be deemed to have been duly given or received when given or received in writing by either the President or Senior Vice-President of the Grand Trunk for the time being, and in the case of any consent required to be given by the Grand Trunk the same shall, unless where otherwise required by the context, be given by the President or Senior Vice-President for the time being of the Grand Trunk and shall for all purposes be binding upon the Grand Trunk.

44. Should it be found in practice that cases and events which may arise or happen have not been provided for in this agreement or that any right or interest of either party has not been fully protected thereby in accordance with its object and intent, IT IS AGREED that in any such case or event the parties will consult together with a view to negotiating with fairness and candor new or other clauses to meet the same and to do justice and equity between the parties in respect thereof.

45. Any difference that may at any time arise under this agreement or respecting the carrying out of the same according to its true intent and meaning shall if it cannot be amicably adjusted by the parties from time to time as the same may arise be by either party submitted to arbitration in the following manner: each of the parties hereto shall appoint as an arbitrator or referee a disinterested person skilled in railway matters, but should either party fail to appoint such arbitrator or referee within ten days after the receipt of written notice of the appointment by the other of its arbitrator or referee, then the arbitrator or referee first appointed

may select another arbitrator or referee. The two so appointed shall select a third arbitrator or referee and their award or the award of the majority of them made after due notice to both parties of the time and place of hearing the matter referred and after affording full opportunity to the parties to be heard and to adduce evidence, shall be final and binding on both parties and they expressly agree to abide thereby. AND IT IS FURTHER AGREED that in case the two arbitrators or referees first appointed shall fail to appoint a third within ten days after the appointment of the one last appointed, then a third arbitrator or referee may be appointed by a judge of the High Court of Justice for Ontario on the application of either party after ten days' notice to the other party. In case of the death or refusal to act of any arbitrator or referee or if for any cause the office of any arbitrator or referee becomes vacant, his successor shall be appointed in the same manner as is provided for the appointment in the first instance unless the parties otherwise agree.

46. Pending the settlement of the matter or matters submitted for arbitration each party shall continue to carry on its business in the regular manner and the standing of either party towards the other shall be in no way affected by the matter in controversy.

47. This agreement is intended to supersede the agreement between the parties with reference to said portion (1) of the joint section, dated the twenty-seventh day of March A.D. 1909, and upon the due execution of these presents said agreement of the twenty-seventh day of March 1909 shall be deemed to be cancelled.

As WITNESS the respective corporate seals of the said parties under the hands of their respective proper officers in that behalf.

THE GRAND TRUNK RAILWAY COMPANY
OF CANADA.

CHAS M. HAYS, *President.*

(Seal)

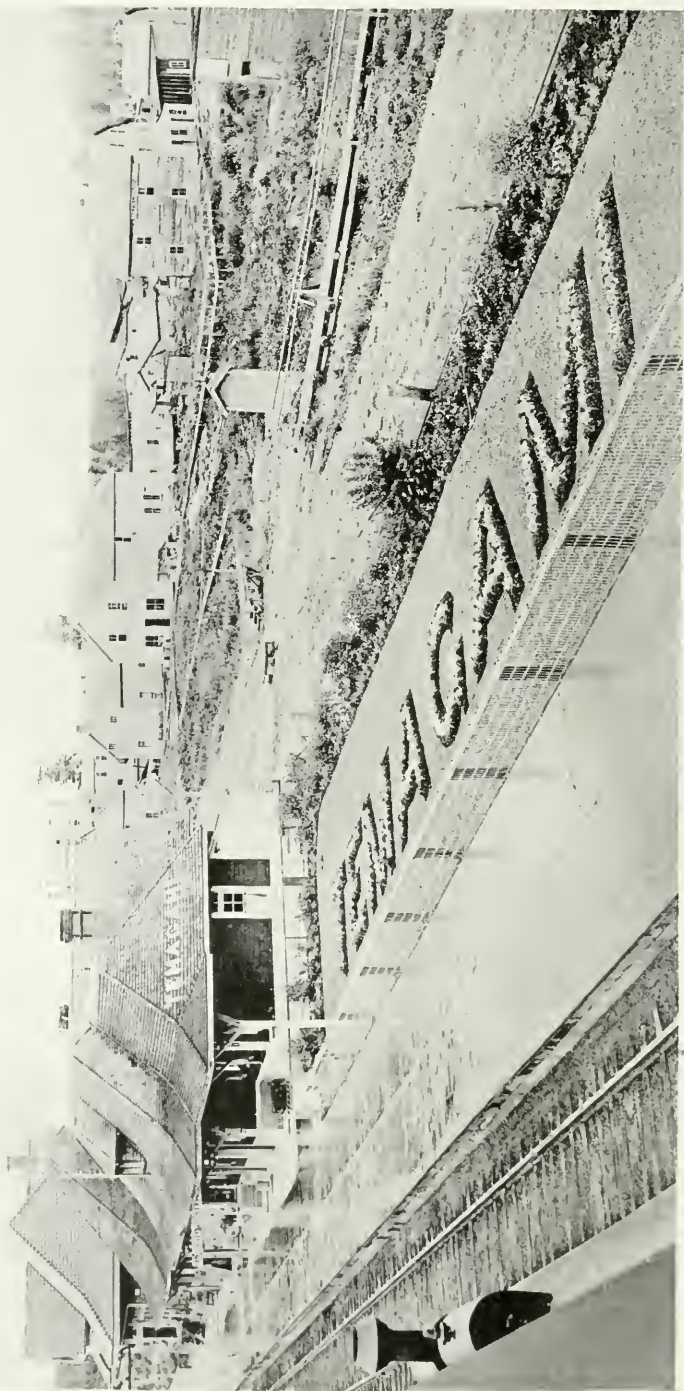
TEMISKAMING AND NORTHERN ONTARIO
RAILWAY COMMISSION.

J. L. ENGLEHART, *Chairman.*

A. J. MCGEE, *Sec-Treas.*

(Seal)

Dated 1st December, 1911.



Temagami in bloom.

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY
COMMISSION

and

THE CANADIAN EXPRESS COMPANY.

AGREEMENT.

THIS AGREEMENT made this first day of December in the year of our Lord one thousand nine hundred and eleven,

BETWEEN :

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY
COMMISSION, hereinafter called "the Commission,"

and

THE CANADIAN EXPRESS COMPANY, hereinafter called "the Express Company."

WHEREAS the Commission owns and operates a certain line of railway in the Province of Ontario extending from the town of North Bay to the Town of Cochrane, and by agreement bearing even date herewith between the commission of the one part and the Grand Trunk Railway Company of Canada of the other part, has granted running rights over said line of railway to the Grand Trunk Railway Company of Canada.

AND WHEREAS under and by said last mentioned agreement it is provided that the Grand Trunk Railway Company of Canada shall be entitled to transact a through and interchanged express business over said line of railway during the continuance of such agreement on such terms as shall be set out in an agreement between the parties hereto.

AND WHEREAS the Express Company is desirous of carrying on business over said line of railway both in the trains of the Commission and in the trains of the Grand Trunk Railway Company of Canada.

NOW THEREFORE THESE PRESENTS WITNESS that in consideration of the premises and of the mutual covenants and stipulations herein contained the parties have agreed with each other as follows:

The Commission on its part agrees:

1. To transport upon its passenger trains from all points on the said line of railway and on all branch lines thereof now and to be hereafter constructed, all express matter in charge of the Express Company with as much promptitude and despatch as is usual and reasonable and as the facilities of the Commission permit.

2. To furnish to the Express Company sufficient space upon all passenger trains for such transportation and for the convenient transaction of its express business; to assign to the Express Company, the usual separate room in its baggage car to be used jointly with the Dominion Express Company, and when such space shall not be sufficient for the proper transportation and transaction of such express business to furnish separate cars for the Express Company's use and to keep such cars in good order and repair and to light and warm them when needed.

3. To carry upon its passenger trains the messengers of the Express Company with their safes, trunks and articles needed in doing the Express Company's business, the Express Company's officers and employees when travelling upon the Express Company's business, and express matter covered by the Express Company's franks (so far as such franks are lawful).

4. To provide and allow the Express Company free approach and access to its depots, stations, premises and trains and reasonable time to load and unload express matter upon and from the trains.

5. To provide and allow the Express Company to use and occupy such rooms in its depots, stations and premises as may be necessary for the loading, unloading and transfer and storage of express matter, provided such occupation shall not be detrimental to the business of the Commission: PROVIDED FURTHER that as to this and the next preceding paragraph it is agreed that same shall not apply to the stations at North Bay, Cobalt, Haileybury, New Liskeard, Englehart, Porcupine and South Porcupine and Cochrane, nor to any other stations as to which the Express Company shall, as hereinafter provided, be required by the Commission to establish separate offices.

6. To allow the Express Company, if it so desires, to employ as its agents any of the station agents of the Commission at their respective stations, except the agents at North Bay, Cobalt, Haileybury, New Liskeard, Englehart, Porcupine and South Porcupine and Cochrane, or at any other stations in which the Express Company shall be required by the Commission to establish separate offices as hereinafter provided. Whenever station agents of the Commission are appointed agents of the Express Company the Express Company will at any time immediately discharge any such agent from its employment at the request of the Commission. The Express Company is to be solely liable for the acts of such agents done by them within the scope of their employment as employees of the Express Company, but not otherwise.

7. To assume all liability if any for the death of or personal injury to the agents or employees of the Commission when acting jointly for the Commission and the Express Company, as well as all liability, if any, for loss and for damage to shipments of express matters, money, bonds or valuables shipped by or on account of the Commission occasioned by accidents to trains of the Commission.

8. To advance the interests of the Express Company and aid it to do a successful express business as far as consistent with its own interests and to provide and allow no express facilities of any kind upon its passenger trains, either through or local, upon the whole or any part of its line of railway to any other person or Company on more favorable terms than those granted to the Express Company.

9. To permit the Express Company to carry on express business on the trains of the Grand Trunk Railway Company of Canada lawfully running over said line of railway under the terms of said agreement of even date herewith; it being agreed that all the facilities in the depots, stations and premises of the Commission above provided for shall be available to the Express Company in respect of express business carried on trains of the Grand Trunk Railway Company of Canada in the same manner as in respect of the business carried on on trains of the Commission, but that save as aforesaid the Commission shall be under no liability of any kind to the Express Company in respect of express business carried on the trains of the Grand Trunk Railway Company of Canada.

The Express Company on its part agrees:

1. To carry on an express business over the line of the Commission and to and at the points reached thereby and to furnish to the public at such points as

efficient an express service as may be reasonably required, and to receive and forward all such express matter as shall be offered to it by the public, except such as is of a dangerous nature: to extend and increase its express business as much as it can and to do all in its power consistent with its own interests to advance the interests of the Commission.

2. That it will not knowingly receive or put on board of any train of either the Commission or the Grand Trunk Railway Company of Canada any boxes or packages containing nitro-glycerine, dynamite, gunpowder, or other dangerous combinations or explosive substances either solid or liquid.

3. To carry upon the lines of the Commission and upon all other lines operated by the Express Company so far as it is permitted to do so, free of cost to the Commission, the ordinary express matter of the Commission including remittances of money to or from the agents of the Commission and any other shipments of money, bonds or valuables made by or on account of the Commission.

4. To hold and keep indemnified the Commission against any payments, charges or expenses for death of or personal injury to any of the officers, agents or employees of the Express Company while engaged in the discharge of their duties upon the trains or in the stations or otherwise on the premises of the Commission, except agents and employees of the Commission acting jointly for the Commission and the Express Company, and to assume all responsibility, if any, for the loss of or damage to the express matter in its charge, and to hold and keep indemnified and harmless the Commission from such loss or damage except loss of or damage to express matter shipped by or on account of the Commission and occasioned by accident to the trains of the Commission.

5. To render monthly accounts to the Commission of the gross revenue received by the Express Company from the transportation of express matter and other services connected with the express business done by it upon the Commission's line of railway. For the purpose of this agreement such gross revenue shall be ascertained thus: The gross revenue from matter carried wholly upon the Commission's line of railway shall be deemed to be the whole amount received by or on account of the Express Company for such matter not including the charges of other express lines. The gross revenue derived from the express matter carried partly upon the Commission's lines and partly upon other lines shall be deemed to be that proportion of the whole amount received by or on account of the Express Company which the number of miles which the matter is carried over the line of the Commission bears to the whole number of miles which the express matter is carried. Before such prorating is done there shall be deducted from the whole amount received all charges of other express lines and of all bridge and ferry tolls. Such statements shall show separately: (a) The gross revenue from business carried by the Express Company on the trains of the Commission; (b) The gross revenue received from through express business carried by the Express Company on trains of the Grand Trunk Railway Company of Canada; and (c) The gross revenue from local express business carried by the Express Company on trains of the Grand Trunk Railway Company of Canada. Through express business shall mean express business originating on the Grand Trunk Railway Company of Canada or its connections and carried upon trains of the Grand Trunk Railway Company of Canada over the line of the Commission from North Bay to Cochrane or *vice versa*, and transferred or carried thereafter by the Express Company on the lines of the Grand Trunk Pacific Railway Company or its connections; and local express business shall mean all other express matter carried by the Express Company on the trains of the Grand Trunk Railway Company of Canada.

The words "Express matter" or "Express business" where they appear in this section are not to be construed so as to refer to Express money orders issued by the Express Company, and nothing in this agreement contained shall render the Express Company liable to account to the Commission for the profits on any Express money orders issued by the Express Company upon the Commission's line of railway.

6. To pay to the Commission fifty per cent. of the gross revenue received by the Express Company in respect of Class A; twenty-five per cent. of the gross revenue received by the Express Company in respect of Class B; and forty per cent. of the gross revenue received by the Express Company in respect of Class C; such payment to be made at the office of the Commission in Toronto on or before the 15th of each month in respect of the preceding calendar month. During the pleasure of the Commission the Express Company may have on the trains of the Commission as its messenger or messengers any of the conductors or baggagemen of the Commission whenever such employment shall not in the judgment of the Commission conflict with the duties to the Commission of such conductors or baggagemen.

7. To afford the Commission or its representatives from time to time in that behalf every opportunity at any time upon reasonable notice to examine the books, papers, records, and waybills pertaining to the business done under this contract and the manner in which the Express Company prepares the statement of gross earnings under this contract, and shall give the commission all reasonable safeguards and checks upon the correctness of said accounts.

8. That all freight and express matter taken by the Express Company shall be loaded and unloaded by its employees and at all times handled by its employees in such a manner as to avoid unnecessary delay to the passenger trains of the Commission.

9. To immediately provide separate offices and accommodation outside the offices and premises of the Commission for the Express business at the towns of North Bay, Cobalt, Haileybury, New Liskeard, Englehart, Porcupine and South Porcupine and Cochrane, and to make free delivery of all express matter addressed to parties within the business districts at said points and to make free collection within the business districts at said points of express matter going outward.

10. To similarly provide separate offices and accommodation outside the offices and premises of the Commission for the Express business at such other points on the line of the railway of the Commission as shall from time to time be indicated by not less than sixty days' written notice from the Superintendent for the time being of the Commission and from the time fixed by such notice for the establishment of such separate offices at said respective points the Express Company shall thereafter make free delivery of all express matter addressed to parties within the business districts at the said respective points and make free collection within the business districts at said points of express matter going outward.

IT IS ESPECIALLY AGREED between the parties hereto as follows:

1. The delivery by the joint agent of the parties hereto to the express messenger of the Express Company on the train of money packages belonging to or consigned to the Commission shall constitute delivery thereof to the Express Company and the delivery by the express messenger on the train to such joint agent of money packages addressed to the Commission shall constitute delivery thereof to the Commission.

2. That if the said line of railway shall be extended beyond Cochrane, or if any other lines of railway shall be operated by the Commission during the con-

tinuance of this agreement, the Express Company shall be given the same privileges and facilities for the transportation of its business thereon as are herein granted on the present line of railway of the Commission in so far as the Commission can legally grant the same. PROVIDED HOWEVER that the privilege to carry on express business over the lines of the Commission on the trains of the Grand Trunk Railway Company of Canada shall be confined to the main line of the Commission's railway from North Bay to Cochrane.

3. The employees of the Express Company while engaged in the transaction of the business herein provided for at the stations of the Commission and on the trains of the Commission or of the Grand Trunk Railway Company of Canada or otherwise on the premises of the Commission, shall be subject to all the rules and regulations that may from time to time be made by the Commission or its representatives in that behalf for the safe conduct and management of its business.

4. That although the Express Company may employ and use the Commission's agents as above specified as agents of the Express Company and may pay such agents by commission or otherwise, and although the Commission may to a greater or less extent be benefited thereby, the Commission is in no way liable to the Express Company or to the public for any loss of any money or any other package or for the charges thereon nor for any damage sustained by the Express Company of any kind whatsoever by reason of the negligence or otherwise of the agents or messengers so employed.

5. This contract shall take effect on the date that the Grand Trunk Railway Company of Canada shall begin to run its trains over the line of railway of the Commission under the terms of said agreement between the Commission and the Grand Trunk Railway Company of Canada bearing even date herewith, and shall remain in force for a period of one year, from that date, and thereafter until ninety days after either party shall give notice in writing to the other of its desire to terminate the same.

AS WITNESS the corporate seals of the said parties under the hands of their respective proper officers in that behalf.

CANADIAN EXPRESS COMPANY.

JOHN PULLEN, *President*. (Seal)

TEMISKAMING AND NORTHERN
ONTARIO RY. COM'N.

J. L. ENGLEHART, *Chairman*. (Seal)

A. J. MCGEE, *Sec'y-Treasurer*. (Seal)

Dated May 1st, 1911.



New Liskeard Station.

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION AND THE GRAND TRUNK RAILWAY COMPANY OF CANADA.

AGREEMENT NIPISSING JUNCTION SPUR.

THIS AGREEMENT made the first day of May, A.D. 1911.

BETWEEN:

THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, hereinafter called "the Lessor,"

AND

THE GRAND TRUNK RAILWAY COMPANY OF CANADA, hereinafter called "the Lessee."

WHEREAS the parties hereto contemplate and now have under consideration the terms of an agreement, hereinafter referred to as the "Running Rights Agreement" under which the Lessor shall grant to the Lessee the right jointly and equally with the Lessor of using and enjoying the freight terminals of the Lessor at North Bay and the main line of the Lessor's railway from North Bay to Cochrane.

AND WHEREAS the Lessor is the owner of lands for a right of way from the south-easterly limit of said joint terminals at North Bay to a point adjoining the right of way of the Canadian Pacific Railway Company at Nipissing Junction and approximately opposite the terminus at Nipissing Junction of the Lessee's line of railway.

AND WHEREAS the Lessee has requested the Lessor to build and construct a branch or extension of the Lessor's railway over said lands from the said south easterly limit of said joint terminals to the limit of the right of way of the Canadian Pacific Railway Company at Nipissing Junction and to lease same to the Lessee.

AND WHEREAS it is desirable and in the public interest that the said branch shall be constructed so as to form a direct connection between the lines of railway of the Lessor and Lessee.

NOW THESE PRESENTS WITNESS that the agreement between the parties in the premises is as follows:

1. The Lessor shall without undue delay proceed to lay out and construct according to the standard of construction of the Lessor's present line of railway, a branch or extension of the Lessor's said railway from the south-easterly limit of the said joint terminals to the limit of the right of way of the Canadian Pacific Railway Company at Nipissing Junction aforesaid, for the purposes of which laying out and construction and every matter connected therewith the Lessor, its servants and agents, shall from time to time have access to and the right to possession of the said lands and every part thereof in the same manner as if this demise had not been made.

2. In consideration of the rents, covenants and agreements hereinafter contained the Lessor has demised and leased and by these presents doth demise and lease unto the Lessee, its successors and assigns, for the period and on the conditions

hereinafter specified the said lands constituting the Lessor's right of way from the south-easterly limit of said joint terminals to the limit of the right of way of the Canadian Pacific Railway Company at Nipissing Junction, together with the railway track and appurtenances herein referred to, TO HAVE AND TO HOLD the same and every part thereof unto and to the use of the Lessee, its successors and assigns, for the term of fifty years from the date on which the Lessee shall take possession of the premises subject to the right of either party to determine the said term at any time after the expiration of twenty years from said date on not less than five years' written notice to the other party to that effect.

3. The rent payable by the Lessee to the Lessor hereunder shall be an annual sum equal to four and one-half per cent. of the cost of said right of way as herein agreed upon and of the laying out and construction of said branch of the Lessor's railway and of the cost of betterments, if any, made by the Lessor during the continuance of the said term, with the consent and approval of the Lessee, in accordance with the provisions hereinafter contained. The cost of said lands and of all surveys and other work done and performed thereon up to the first day of April, 1911, is hereby agreed as of the said first day of April, 1911, to be the sum of \$6,968.33. Said rental shall include four and one-half per cent. of said sum reckoned from said first day of April, 1911, and four and one-half per cent. of each other item of expenditure by the Lessor in connection with the laying out and construction of said branch or in subsequent betterments as aforesaid made pursuant to the provisions hereof reckoned from the respective dates of payment thereof by the Lessor.

4. If at any time during the continuance of the said term the Lessor shall deem it necessary or expedient to make any expenditures upon capital account for the improvement of the said line of railway by way of replacement of structures by others more modern or for any other betterments, the Lessor may expend such sums and the amount thereof shall be added to the cost of the line and thereafter considered as part of the cost thereof upon which interest by way of rental at the rate aforesaid shall be paid by the Lessee: PROVIDED that no such expenditure shall be entered upon or made without the consent and approval of the Lessee.

5. The Lessee shall pay before entering upon the use and occupation of the said line hereunder four and one-half per cent. per annum of the said agreed cost of said lands from the said first day of April, 1911, to the date when the Lessee shall enter upon the occupation and use of said line hereunder and four and one-half per cent. of all expenditures by the Lessor in the laying out and construction of the said line from the respective dates of the payment of such expenditure as aforesaid to the date when the Lessee shall enter upon the occupation and use of said line hereunder, and the Lessee shall pay the rental as hereby fixed from and after the date of assuming the said occupation and use in equal monthly instalments, the first of such instalments to be made at the expiration of one month from the beginning of such use and occupation.

6. Notwithstanding anything contained in these presents the Lessor shall have the right at any time and from time to time during the continuance of the said term to use for its own purposes or to grant to any other railway company or companies the right to use the whole or any portion of the said line of railway jointly with the Lessee, provided that before exercising such right the Lessor shall give to the Lessee not less than sixty days' notice in writing of its desire so to do, specifying in such notice the portion of said line upon which said right is to be exercised; and in case the Lessor shall exercise such right it shall abate to the

Lessee in respect of the portion of the line so used (a) such proportion of the maintenance and operating expenses thereof as the number of cars run over or upon any of such portion of said line of railway by the Lessor, or by any other such railway company or companies, or by both, as the case may be, shall bear to the whole number of cars run over or upon any of such portion of the said line of railway: (b) The proper aliquot portions, based upon the number of users of the said line or any part thereof pursuant to such notice, of that proportion of the rental payable by the Lessee hereunder which the number of miles of said line of railway specified in such notice shall bear to the total mileage of the said line.

7. Should the Lessor give notice of its desire to use or to grant to any other Railway Company or Companies the right to use jointly with the Lessee the whole or any portion of the said line of railway as hereinbefore provided, the parties hereto shall thereupon enter into an agreement containing all such provisions for the joint maintenance and operation thereof, not inconsistent with the provisions hereof, as may be reasonably required under the circumstances, it being understood that so far as they are applicable the provisions of the said running rights agreement shall be adopted as the basis of, and be incorporated in, any agreement hereinafter made in pursuance of this paragraph.

8. In case the Lessor shall not when said line is ready for use and occupation by the Lessee have paid all accounts in connection with such laying out and construction or shall not have delivered to the Lessee its accounts therefor or in case the Lessee shall not have had the the opportunity to examine, audit and accept such accounts, the Lessee may pay, subject to adjustment, such amount as shall be demanded or required by the Lessor as rental up to the beginning of such use and occupation and the Lessor shall furnish to the Lessee a detailed statement showing all expenditure incurred by the Lessor in laying out and construction of said line, and will allow proper inspection by the Lessee or its servants or agents in that behalf of all pay-rolls, books, accounts and vouchers for the purpose of checking or verifying all such expenditure and shall afford proper facilities for such investigation, and upon the ascertainment by the parties of the true amount of such expenditure the accounts shall forthwith be adjusted accordingly, and in case the parties cannot agree as to the amount of such expenditure the same shall be determined under the provision for arbitration hereinafter contained.

The Lessor will also from time to time furnish to the Lessee detailed statements shewing all expenditures incurred by the Lessor, with the consent and approval of the Lessee in betterments as aforesaid and will allow proper inspection by the Lessee, its servants or agents in that behalf of all pay rolls, books, accounts and vouchers for the purpose of checking or verifying all such expenditure for such betterments, and shall from time to time afford proper facilities for such investigation and in case the parties cannot agree as to the amount of any such expenditure, the same shall be determined under the provisions for arbitration hereinafter contained.

10. The Lessee shall be entitled to install home or distant signals or other apparatus pertaining to interlocking plants on the said demised premises and will be entitled at the expiration or other determination of the said term to remove same subject to restoring the said demised premises to the same plight and condition as before the erection of or installation thereon of any such signals or other apparatus.

11. The Lessee covenants with the Lessor as follows:

(a) That the Lessee will during the said term pay unto the said Lessor the rent hereby reserved in the manner hereinbefore mentioned without any deduction whatsoever.

(b) That the Lessee will pay all taxes, rates, duties and assessments whatsoever, whether municipal, parliamentary or otherwise, hereafter charged upon the said demised premises or upon the said Lessor on account thereof.

(c) That the Lessee will during the said term from time to time well and sufficiently repair, maintain and keep the said demised premises and all the Lessor's structures thereon, including all fences and other appurtenances of the said line of railway, in as good a state of repair and condition as that portion of the Grand Trunk Railway System between Toronto and North Bay.

(d) That the Lessee will from time to time and at all times during the continuation of the said term observe and perform all the requirements of the law from time to time applicable to the operation of the said line and will bear and pay all the expenses incurred in doing and performing all such acts, matters and things as may be necessary for the maintenance and operation of the said line of railway in conformity with the laws of the Dominion of Canada and of the Province of Ontario, respectively applicable thereto, and will indemnify and save harmless the Lessor of and from all costs, charges and expenses in the premises. PROVIDED HOWEVER, that nothing herein contained shall be construed as imposing upon the Lessee any obligation to construct, or provide at its own expense any work or structure of a permanent character, or which can be regarded as a betterment, which is at any time during the said term directed or ordered by any board or authority duly constituted under the laws of the said Dominion or Province or is directed or ordered by any Act of the Parliament of Canada or of the Legislature of the Province of Ontario, it being the understanding and intention that all material required to be provided and work done in connection with any such work or structure, shall be provided and done by and at the cost of the Lessor, and that interest at the rate of four and a-half (4½) per cent. shall be thereafter paid thereon by the Lessee as additional rental hereunder irrespective of whether the Lessee shall or shall not have consented to such expenditure.

(e) That the Lessee, its successors and assigns shall not nor will during the said term, assign, transfer or set over or otherwise by any act or deed permit the said premises or any of them to be assigned, transferred, set over or sublet unto any person or persons, company or companies whomsoever without the consent in writing of the Lessor, its successors and assigns, first had and obtained.

(f) The Lessee at the expiration or other determination of the said term will yield up the said line of railway, structures and appurtenances to the Lessor in as good plight and condition in all respects as the same shall be in at the beginning of the use and occupation thereof by the Lessee hereunder and as to any structure or other matter or thing covered by the Lessor's betterments as aforesaid in as good plight and condition as the same were on the completion of such respective betterments; and in case the said railway, structures and appurtenances or any part thereof shall not at the expiration or other determination of the term hereby granted be so delivered up in as good plight and condition as at the beginning of such occupation or as to any such betterments in as good plight and condition as at the completion thereof respectively and the Lessee will pay to the Lessor in cash such sum as shall be sufficient to cover the cost and all incidental expenses of bringing the said railway structures and all appurtenances or

such of them as shall not be in such plight and condition as aforesaid in all respects up to such standard; and in case the parties cannot agree upon the amount payable hereunder the same shall be fixed by arbitration as hereinafter provided, it being expressly agreed that the Lessee shall not be entitled to any payment or allowance in respect of any betterments of any kind made or claimed to be made by the Lessee, the true intention and meaning of these presents being that any betterments made by the Lessee shall be deemed and understood to be made for the Lessee's own benefit during the said term.

12. Provided always and it is hereby expressly agreed that if and whenever the rent hereby reserved, or any part thereof, shall be unpaid for sixty days after any of the dates on which the same ought to have been paid, although no formal demand shall have been made therefor, or in case of the breach or non-performance of any of the covenants or agreements herein contained on the part of the Lessee, its successors and assigns, then and in either or any of such cases it shall be lawful for the Lessor at any time thereafter into and upon the said demised premises or any part thereof in the name of the whole re-enter and the same to have again, re-possess and enjoy as of its former estate therein, anything herein contained to the contrary notwithstanding.

13. The Lessor hereby covenants with the Lessee that the Lessee making the payments herein agreed to be made and performing, observing and fulfilling the covenants and the terms and conditions herein contained on the part of the Lessee to be observed, performed and fulfilled, shall from time to time and at all times hereafter during the said term have and enjoy the use and occupation of the said demised premises according to the terms and conditions herein contained without interruption or interference by the Lessor or any other party or parties whomsoever lawfully claiming under the Lessor.

14. In case of any notice to be given to or by the Lessor hereunder or in case of any demand to be made by or on behalf of or upon the Lessor hereunder the same, except where any other mode shall be indicated by the context, shall be deemed to have been duly given or received when given or received in writing by either the Chairman or Secretary of the Lessor for the time being; and in case of any consent required to be given by the Lessor the same shall, unless otherwise required by the context, be given by the Chairman for the time being of the Lessor and shall for all purposes be binding upon the Lessor; and in case of any notice to be given to or by the Lessee hereunder or in case of any demand to be made by or on behalf of or upon the Lessee hereunder the same, except where any other mode shall be indicated by the context, shall be deemed to have been duly given or received when given or received in writing by either the President or Senior Vice-President of the Lessee for the time being; and in case of any consent required to be given by the Lessee the same shall, unless where otherwise required by the context, be given by the President or Senior Vice-President for the time being of the Lessee, and shall for all purposes be binding upon the Lessee.

15. Any difference which may at any time arise between the parties hereto respecting or by reason of any of the provisions of this agreement, or as to the true intent and meaning thereof, or respecting anything to be performed, ascertained or determined for the purpose of fully carrying out the same, or of any agreement for the joint maintenance and operation thereof or of any portion thereof, as contemplated by Clause 7 hereof, shall if not amicably adjusted be from time to time, as the same arises, submitted to arbitrators appointed as follows: Each

of the parties hereto shall appoint an arbitrator or referee, but should either party fail to appoint such arbitrator or referee within ten days after the receipt of written notice of the appointment by the other of its arbitrator or referee, then the arbitrator or referee first appointed may select another arbitrator or referee. The two so appointed shall select a third arbitrator or referee and their award or the award of the majority of them made after due notice to both parties of the time and place of hearing the matter referred to and after affording full opportunity to the parties to be heard and to adduce evidence, shall be final and binding upon both parties and they expressly agree to abide thereby. In case the two arbitrators or referees first appointed shall fail to appoint a third arbitrator within ten days after the appointment of the one last appointed then a third arbitrator or referee may be appointed by a Judge of the High Court of Justice for Ontario on the application of either party after ten days' notice to the other. In case of the death or refusal to act of any arbitrator or referee, or if for any cause the office of any arbitrator or referee becomes vacant, his successor shall be appointed in the same manner as is provided for the appointment in the first instance unless the parties otherwise agree.

Pending the final disposition of the matter or matters submitted for arbitration each party shall continue to comply with and carry out the provisions of this agreement and the standing of either party towards the other shall be in no way affected by the matter in controversy.

16. These presents shall be binding upon and shall enure to the benefit of the successors and assigns of the parties respectively.

IN WITNESS WHEREOF the parties hereto have hereunto set their respective corporate seals on the day and year first above written.

SIGNED, SEALED AND DELIVERED.

in the presence of:

THE GRAND TRUNK RAILWAY COMPANY
OF CANADA.

(Sgd.) CHAS. M. HAYS, *President*.
(Seal)

TEMISKAMING AND NORTHERN ONTARIO
RAILWAY COMMISSION.

(Sgd.) J. L. ENGLEHART, *Chairman*.

(Sgd.) A. J. MCGEE, *Sec-Treas*.
(Seal)

Report on Steel Freight and Passenger Equipment.

CHIEF ENGINEER AND SUPERINTENDENT OF MAINTENANCE
S. B. CLEMENT, IN CONJUNCTION WITH MECHANICAL
DRAUGHTSMAN H. L. RODGERS.

The advisability of a change in the construction of freight and passenger cars from the generally used wooden type of car to that in which steel or metal should form the prevailing material, has been the subject of much consideration in railway circles during the past ten years, and it may be said that the T. & N. O. Ry. has been very much to the front amongst Canadian railroads in advocating and placing in service cars of this type of construction, as quickly as conditions under which the railway operates, and the progress being made in the design and manufacture of such cars made it possible to do so.

In 1906, the Commission, in view of the rapidly increasing freight traffic, decided that it would be necessary to make additions to their freight equipment which at that time was relatively small, and on December 21st of that year, instructed their officers having supervision over such matters to ascertain if it were possible to obtain freight equipment of steel construction from Canadian builders, also to submit report as to suitability such cars to the requirements of the T. & N. O. Ry.

It was found that but one concern, the Dominion Car and Foundry Co., of Montreal, not long organized, was in a position to tender on the building of steel equipment, and after investigation, report was submitted January 21st, 1907, advising that steel flat cars of 100,000 lbs. capacity be ordered. In accordance with this recommendation instructions were issued that specifications be prepared for such cars, and on May 28th, contract was let to the Dominion Car and Foundry Co. for 100 cars. These cars were delivered to the railway in September, and have given excellent results under such severe service conditions as obtained in log traffic and ballast service.

In view of the good results obtained in the case of the steel flat cars it was decided to continue the use of this material in future orders for freight equipment, and in May, 1908, contract was awarded to the Dominion Car and Foundry Co. for 50 box cars, 80,000 capacity, in which steel should be used for the underframe. Delivery of these cars was made in October.

In February, 1909, contract was given to the Dominion Car and Foundry Co., Montreal, for fifty steel underframe box cars of design and capacity similar to those purchased previously from this company, and which had proven very satisfactory. At the same Commission meeting, the Dominion Car and Foundry Co. were also given the contract to construct twelve steel cinder cars. Delivery of both the box and cinder cars were made in April, 1910.

In May, 1909, contract was awarded the Silliker Car Co., Halifax, for seven conductor's caboose cars, with steel underframing. These underframes the contractor had built at the Dominion Car and Foundry Co.'s works, Montreal, as up to this time this was the only Canadian car works equipped for this class of work. Delivery of these cars was made in October, 1909.

With the exception of four additional conductor's vans of the same type, purchased this year from the Canadian Car and Foundry Co., Montreal, no further additions have been made to the freight equipment.

The results obtained from steel freight equipment has been very satisfactory. While there is no doubt but that they are somewhat more difficult to repair than the wooden underframe car, from the results obtained in reduced cost of maintenance due to ordinary service, deterioration and also their ability to withstand accidents very destructive to the wooden car, the Commission have been amply justified in their early decision as to the purchasing of freight equipment of this type.

In regard to the use of steel in passenger equipment, this matter is one which has been the subject of much consideration and investigation on the part of the officials of this road, at the instance of the Chairman of the T. & N. O. R. Commission particularly.

In 1906, whilst the subject of steel freight equipment was being considered, the Commission also directed that investigation be made in reference to the utilization of steel in the construction of passenger equipment, and in this connection a short resume of the gradual progress which has been made in late years in this matter might be of interest.

It may be said that previous to the year 1902, but very little had been done along these lines. About this time, however, the necessity of providing passenger cars, in which the dangers attendant upon the use of wood in cars, from fire, telescoping and splintering in collisions, should be reduced to a minimum, began to be the subject of serious consideration amongst railway officials. Higher speeds, the increase in length of cars and the longer trains, all combined to make the matter one which certainly merited and received attention, it being always the object of the railway companies to improve on their existing passenger equipment, wherever possible, in order to meet the increasing demands of the travelling public for safety as well as speed and comfort.

The matter of the substitution of steel for wood, however, was one which for obvious reasons moved somewhat slowly. Whilst a certain amount of useful experience had been obtained concerning the suitability of steel from its application to freight cars, in regard to the underframing, trucks, etc., difficult problems presented themselves in the designing and manufacture of the superstructure. Material such as for insulation, flooring, inside finish, etc., had to be provided and experimented with; designs required to be very carefully investigated in order to secure strength without undue increase in weight, also to facilitate such repairs as ordinarily, steel cars might be expected to require, and manufacturing equipment had to be provided and processes originated or improved upon in order to bring the costs of such cars within reasonable figures.

In 1902 the Illinois Central Railway designed and built some cars for suburban services in which steel was used for the underframing and framing of the body, the remainder of the car being of wood. In the same year the Pressed Steel Car Co., Pittsburg, designed a car in which steel was used for the underframing and trucks only, the entire body being similar to the usual wooden type.

This design, on being presented to the various railroad officials, met with considerable criticism, some being of the opinion that it fulfilled the requirements, and others that although a step in the right direction, it did not go far enough, that the change necessary required that not only the underframe, but also the superstructure should be of steel or material which would reduce the fire risk to a minimum.

In the early part of 1904 the Interborough Rapid Transit Co. had a sample car built in which, with the exception of some minor parts, steel was used entirely. This car in service developed some defects which experience remedied, and shortly afterwards some 300 similar cars were purchased from the American Car and Foundry Co.

In 1904, a baggage car was constructed for the Erie Railroad Co. by the Standard Steel Car Co., also postal and express car. These cars were probably the first examples of what is termed all steel construction in steam railroad service. It was found, however, that continual complaints were being received from the employees using these cars, that they were too warm in summer on account of the heat transmitted by the steel plate, and also too cold in winter. The inside lining was removed and "composite board" was substituted, which appeared to overcome the difficulty, as no more complaints on the above score were received. Shortly after these cars were built the same manufacturer constructed two mail cars of about the same general description for the New York, New Haven and Hartford Railway.

In the latter part of 1905 the Santa Fe built some postal cars with steel underframes and steel plate ends, the remainder being of the usual wooden construction.

In June, 1906, the Pennsylvania R.R. completed at its Altoona shops a sample car in which steel was used to a very large extent throughout, and from experience obtained with this car the officers of that road decided to extend the use of metal to include practically the whole body of the car.

The Pennsylvania has probably devoted more time and expense to the development of steel passenger coach than any other American road, and at the present have a greater number of such cars in service. Some difficulty has been encountered in regard to insulation against heat and cold, but, on the whole, their later types of cars have been satisfactory.

In 1906 also the first steel cars were constructed for the Harriman lines at the Southern Pacific shops.

In 1907 the Pullman Company, who had given the matter much attention, turned out their first steel sleeping car, and have since constructed a considerable number of such cars with improvements, such as experience with the original car suggested. About the same period the Pullman Company delivered to the St. Louis and San Francisco equipment consisting of baggage, mail and express cars. These cars have steel underframes with steel frame superstructure, the remainder of the body being practically of wood, but cased with sheet steel, the railroad company being of the opinion that it was unnecessary to go to the expense of an absolutely all metal car so long as the necessary strength was secured, and fire risk reduced to the extent that would be obtained with the above construction.

From this time forward much progress has been made on roads in United States; various types have been constructed, and while there are still differences of opinion in regard to the merits of all steel cars and cars of the composite type, it would appear that the trend of same is toward the use of metal in so far as practicability will permit. At the end of the present year, out of a total of about 55,000 cars, 3,000 or over 5 per cent., are either all steel or steel framed, and it is estimated that about sixty per cent. of the orders placed for 1913 delivery will be of similar types.

To revert to the matter as pertaining to the T. & N. O. Ry. In reply to the Commission's request of December 1st, 1906, for data, etc., report was submitted that after considerable correspondence with the few roads having such cars in service, they were of the opinion that the all steel passenger car building art had not made sufficient advancement to warrant the T. & N. O. Ry. of taking any steps in this direction, the main objection being that the difficulty of securing proper insulation of the car against heat and cold, which was the source of greatest trouble on United States roads, would certainly be much greater on the T. &

N. O. Ry., on account of the very low temperature obtaining along that line in winter, and that the cars so far built were mostly experimental, and the cost would be excessive, as it would be necessary to make considerable alterations to many existing designs in order to meet the conditions on this railway. It was recommended that in the meantime, pending further development, any new additions made to the T. & N. O. passenger train equipment should be of the composite type, *i.e.*, they should be arranged with steel underframe and body frame, the remainder to be of wood. This, while providing much additional strength, did not eliminate fire risk to any extent. It was thought, however, that until better methods were devised to cope with the insulation difficulties, this was as far as it was possible to go.

In March, 1909, contract was let to the Preston Car and Coach Co. for an official car, in which this type of construction was embodied. This car was completed in August, 1910, and the first car built in Canada in which steel had been used to any great extent.

During the year 1909 the officials of the railroad, under instructions from the Commission to report what further developments had taken place, visited the railroads and manufacturing plants in the United States. The report presented stated that while considerable advancement had been made in regard to general design and the mechanical details, there had not been very much in the matter most essential to the T. & N. O. Ry., that of insulation, and as a result, it was decided to continue the construction previously decided upon for the official car, for three parlor cafe cars, the contract for which being let February, 1910, to the Canadian Car and Foundry Co., Montreal.

In April, 1910, specifications embodying such features as were deemed suitable for T. & N. O. requirements were submitted for tenders. In reply but two quotations were received, one from the Pressed Steel Car Co., Pittsburg, and one from the American Car and Foundry Co., Wilmington. The quotation from the Pressed Car Steel Co. was based on a type of car which they were building for a road in United States, and could not be considered, as this type of car was not suitable to the conditions on the T. & N. O. Ry.; that of the American Car and Foundry Co. was for \$27,000 per car, F.O.B. Wilmington.

It will be clear that this price is prohibitive, more so when freight and duty are added, the price then being above \$34,000. The high cost the builders attributed to the fact that the number of cars to be ordered was small and considerably different in construction from the types they had built, much expense would be incurred in arranging drawings, patterns, dies, etc. The matter has been allowed to stand pending further developments, and in the intervening time has been followed up closely.

In March, 1912, a visit of investigation was made, and from what was noted it has been decided that it is now possible to arrange for cars at a reasonable cost which will be suitable to the conditions on this railway. Specifications are in the course of preparation for mail and express, baggage, first and second class coaches, so that if so desired the matter may be taken up quickly.

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Fifth Annual Report
OF THE
HYDRO-ELECTRIC POWER
COMMISSION

OF THE
PROVINCE OF ONTARIO

FOR YEAR ENDED OCTOBER 31st

1912

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



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1913

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To His Honour SIR JOHN MORISON GIBSON, K.C.M.G.,
Lieutenant-Governor of Ontario.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to present to Your Honour the Fifth Annual Report of the Hydro-Electric Power Commission of Ontario for the fiscal year ending October 31st, 1912.

Respectfully submitted,

ADAM BECK,
Chairman.

TORONTO, March 1st, 1913.

HONOURABLE ADAM BECK,

*Chairman, Hydro-Electric Power Commission,
Toronto, Ont.*

SIR,—I have the honour to transmit herewith the Fifth Annual Report of the Hydro-Electric Power Commission of Ontario for the fiscal year ending October 31st, 1912.

I have the honour to be,

Sir,

Your obedient servant,

W. W. POPE,

Secretary.

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

HON. ADAM BECK, London, Chairman.

HON. JOHN S. HENDRIE, C.V.O., Hamilton, Commissioner.

W. K. MCNAUGHT, M.P.P., Toronto, Commissioner.

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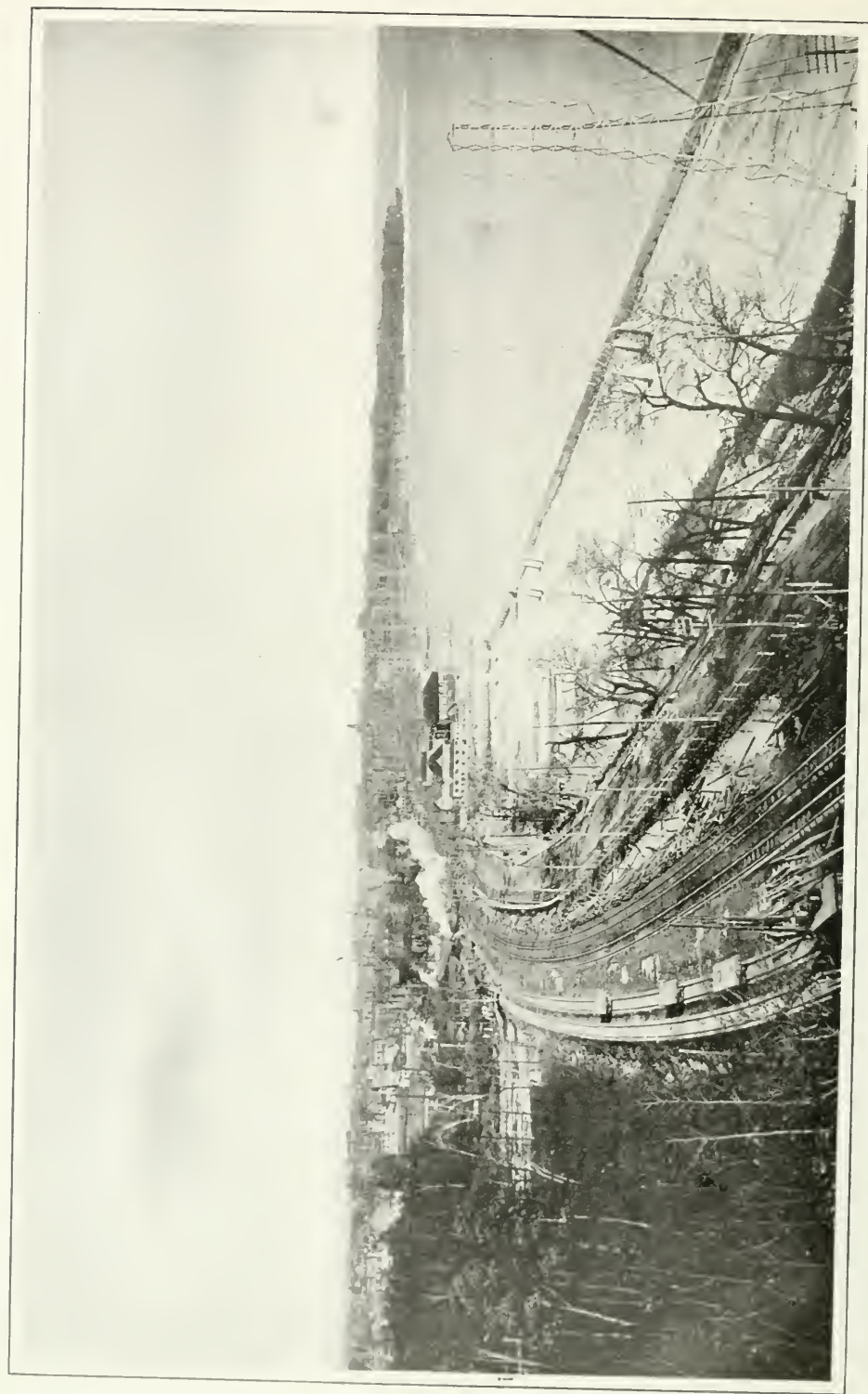
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Toronto Entrance Towers . Humber Bay

FIFTH ANNUAL REPORT

OF THE

Hydro-Electric Power Commission

CHAPTER I

LEGAL PROCEEDINGS

ACTS

The following Act concerning the Hydro-Electric Power Commission and known as the "Power Commission Amending Act of 1912," was passed by the Legislature of Ontario during the Session of 1912.

This Act invests the Commission with additional powers and, among other things, enables it to regulate water privileges and provide for the conservation of water powers through the development of storage works; empowers it to acquire by purchase or expropriation, when necessary or desirable, the whole or parts of the existing electric distributing plants in the various municipalities contracting for supply of power, and to contract for the sale and transfer of the same to the respective municipal corporations. It also provides for the regulation of the construction and standardization of electrical equipment, as well as the control of rates at which electric energy is to be sold, the methods of book-keeping to be employed by the municipal corporations operating distributing plants, and the application of surplus receipts to one of the accounts specified in the Act. Besides this, it confers the authority to order wires to be placed underground in cities and towns where such procedure is necessary, and confirms a number of by-laws and contracts passed by the various municipalities.

The Power Commission Act, 1912

An Act to amend the Power Commission Act.

(2 Geo. V., chap. 14.)

Assented to 16th April, 1912.

HIS MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:—

1. This Act may be cited as *The Power Commission Act, 1912*. Short title.
2. Section 5 of *The Power Commission Act* is repealed, and the following section substituted therefor:— 7 Edw. VII.
c. 19, s. 5,
amended.
- 5.—(1) The Chairman of the Commission shall be paid out of such moneys as may be voted by the Legislature for the general purposes of the Commission, such annual salary or other remuneration not exceeding Six Thousand Dollars (\$6,000) per annum, as may be determined by the Lieutenant-Governor in Council. Salary of
Chairman of
Commission.

Seat not vacated, nor penalties incurred thereby.

S Edw. VII.
c. 5.

- (2) Notwithstanding anything contained in *The Legislative Assembly Act*, the said Chairman shall not by reason of such salary or remuneration or the acceptance thereof avoid his election or vacate or forfeit his seat, or incur any of the penalties imposed by the said Act for sitting and voting thereafter as a member of the Legislative Assembly.

Salaries of other members of Commission.

- (3) The members of the Commission other than the Chairman or a member of the Legislative Assembly shall be paid out of such moneys as may be voted by the Legislature for that purpose, such annual salary or other remuneration as may be fixed by the Lieutenant-Governor in Council.

Commencement of section.

- (4) This section shall take effect as from the thirty-first day of October, A.D. 1911.

S Edw. VII.
c. 19, s. 8,
amended.

3. Section 8 of *The Power Commission Act* is amended by striking out the words "and supply" in the 6th line of clause *b* in the said section, and inserting in lieu thereof the words "supply and distribution," and by adding to the said section the following clauses:—

Flooding lands and improving water powers.

- (d) To enter upon, take and use without the consent of the owners thereof, any lands upon which any water power or privilege is situate, or any lake, river, stream or other body of water, which in the opinion of the Commission is capable of improvement or development for the purpose of providing water power, and to construct such dams, sluices, canals, raceways and other works, as may be deemed proper or expedient for that purpose, and to flood and overflow any lands as may be deemed necessary for the purpose of providing storage of the water, or for any other purpose in connection with such works, and to contract with any municipal corporation, company or individual for the use of any of the improvements or works so made, on such terms and conditions as may be agreed on, and to charge such tolls for the use of the water power or improvements or works, by any municipal corporation, company or individual as the Commission may deem reasonable, having regard to the cost of acquiring such lands, and of the construction, maintenance and operation of such improvements or works.

Acquiring distributing plant.

- (dd) To acquire by purchase or to expropriate any plant, machinery, appliances, wires, poles and other equipment, and the lands occupied by or used in connection with the same, or any part thereof used or intended for the distribution of electrical power or energy in a municipality, the corporation of which has entered into an agreement with the Commission for the supply of electrical power or energy, and to contract for the sale and transfer to such municipal corporation of such plant, equipment and lands upon such terms and for such price, not being less than the price paid by the Commission, with the expenses in connection with such purchases or expropriation added thereto, but if part only of the property is taken the damage done to the property by the severance shall be taken into consideration in determining the compensation.

4. *The Power Commission Act* is amended by inserting therein the following as section 10a. 7 Edw. VII.
c. 19,
amended.

10a.—(1) Where any of the compulsory powers mentioned in section 8 are exercised with respect to land and no entry on or use of the land taken has been made, except for the purpose of survey or examination, the Commission at any time before the expiration of three months from the date of the award, may, by writing under the hand of the Chairman and the Seal of the Commission, registered in the proper Registry or Land Titles Office, declare that the land or any part thereof is not required and is abandoned by the Commission, and thereupon the land declared to be abandoned shall revert to the person from whom it was taken, or in those entitled to claim under him. Abandonment of lands after expropriation.

(2) Where the land taken, or any part thereof, is abandoned, the person from whom it was taken shall be entitled to all damages sustained, and all costs incurred by him in consequence of the taking and abandonment; and where part only of the land is abandoned, the fact of such abandonment, and the damages, if any, sustained in consequence of that which is abandoned having been taken, and all the other circumstances of the case shall be taken into account in determining the amount to be paid to any person claiming compensation, and the amount of the damages shall be determined in the manner provided by *The Public Works Act*, and, if a reference as to compensation is pending, shall be determined on such reference. Total abandonment.

Partial abandonment.

5. Subsection 2 of section 12 of *The Power Commission Act, 1911*, is amended by inserting the words "or the question as to a supply of electrical power or energy provided for by section 11 of *The Power Commission Amendment Act, 1909*," after the word "Act," where the same appears in the fourth line, and by inserting the words "or by this Act" after the word "Act," where the same appears in the seventh line of the said subsection. 1 Geo. V.
c. 14, s. 12,
ss. (2),
amended.

9 Edw. VII.
c. 19.

6. Subsection 2 of section 14 of *The Power Commission Act* is repealed, and the following substituted therefor:— 7 Edw. VII.
c. 19, s. 14,
(2),
repealed.

(2) The council of a municipal corporation may, if they see fit, submit to the electors a by-law providing for borrowing by the issue of debentures, the money required for any of the purposes mentioned or referred to in sections 12, 13 and 14 of *The Power Commission Act*, at the same time as such council submits to the electors a by-law approving of a provisional contract entered into under section 12 of the said Act, or a question as to a supply of electrical power under section 11 of *The Power Commission Amendment Act, 1909*, and such by-law for borrowing money may be finally passed by such council either before or after such corporation has entered into a contract with the Commission for the supply of electrical power or energy, but the debentures authorized by such by-law shall not be issued until the corporation has entered into a contract with the Commission for the supply of such electrical power or energy. Mode of submitting by-law to electors.

7 Edw. VII.
c. 19, s. 18,
cl. c,
amended.

7. The clause lettered *c* in section 18 of *The Power Commission Act* is amended by inserting after the word "operating" in the first line the word "supervising."

7 Edw. VII.
c. 19, s. 22,
subsections
4 and 5,
10 Edw. VII.
c. 16,
repealed.

8. Subsection 4 and 5 of section 22 of *The Power Commission Act*, as enacted by section 4 of the Act passed in the tenth year of the reign of His late Majesty King Edward the Seventh, chaptered 16, are repealed.

7 Edw. VII.
c. 19,
amended.

9. *The Power Commission Act* is amended by adding thereto the following sections—

Regulations

22a.—(1) The Commission may make regulations as to

As to equip-
ment.

(a) The construction, operation and inspection of the works, plant, machinery, apparatus, appliances and equipment for the transmission, distribution, connection, installation and use of electrical power or energy by municipal corporations, and by any railway, street railway, electric lighting, power or transmission company, or by any other company or individual, transmitting, distributing, installing or using electrical power or energy, or whose undertaking, works, or premises are connected with any plant for transmission or distribution of electrical power or energy.

As to inspec-
tion.

(b) Requiring the appointment of inspectors by the corporation of any municipality for the purpose of enforcing the due observance of such regulations.

Ordering
changes in
plans and
equipment.

(2) The Commission may at any time order the installation, removal or alteration of any works, plant, machinery, apparatus, appliances or equipment, as in the opinion of the Commission may be necessary for the safety of the public or of workmen, or for the protection of property against damage by fire or otherwise.

Rates.

22b.—(1) The rates chargeable by any municipal corporation generating or receiving and distributing electrical power or energy, shall at all times be subject to the approval and control of the Commission; and the rates charged by any company or individual receiving power from the Commission for the supply of electrical power or energy shall at all times be subject to such approval and control.

Prescribing
system of
bookkeep-
ing, etc.

(2) The Commission may prescribe a system of bookkeeping and keeping accounts of the assets, liabilities, revenue and expenditure of any municipal corporation or municipal commission, and may require from such municipal corporation or commission such returns and statements as the Commission may deem proper, and may extract from such books, returns and statements such information as in the opinion of the Commission may be useful for publication, and may embody the same in the reports of the Commission.

- (3) Section 57 of *The Ontario Railway and Municipal Board Act, 1906*, 6 Edw. VII. c. 31, s. 57, shall not apply to municipal corporations or commissions, which are subject to the provisions of this section, so far as the said section relates to the development or distribution of electrical power or energy. not to apply.

22c. Whenever it appears from the accounts of a municipal corporation or municipal commission that after providing for any payments required to be made on account of principal or interest of any debentures issued for the construction and equipment of works and plant for the production, development or distribution of electrical power or energy, and in the case of a municipal corporation or municipal commission receiving electrical power or energy from the Commission for distribution, after providing for payments required by this Act, that there is a surplus at the credit of the municipal corporation or municipal commission, such surplus shall be applied and disposed of in such manner as the Commission may by general regulation or special order direct, Where accounts of corporation show a surplus.

(a) In the reduction of any indebtedness incurred with respect to the construction and equipment of such works and plant, or

(b) In the maintenance, repair or renewal thereof, or

(c) In the extension of such works and plant, or

(d) In the formation of a fund to be used at a future time for any of such purposes.

22d. A municipal corporation or municipal commission and any company or individual neglecting or refusing to obey and carry out any order or direction of the Commission or of a member thereof, made under section 22, or of the Commission made under section 22a, section 22b, or section 22c, in addition to any other liability, shall forfeit to His Majesty for the use of the Province the sum of \$100 for every day during which such neglect or refusal shall continue. Orders of Commission. Penalty for disobeying.

22e.—(1) Where the Commission is of opinion that it is necessary or expedient for the protection of life or property or for the convenience of the public that the use of overhead lines upon any highway or public communication or part thereof in a city or town, including the wires of telegraph, telephone, electric light, heat, or power companies, shall be discontinued, the Commission may so direct and upon such terms and subject to such conditions as it may prescribe may require that such wires be placed and carried in underground conduits, to be constructed and maintained in accordance with the directions and to the satisfaction of the Commission, and may abrogate any right to carry lines on poles in such city or town which may have been given by any Act or by any municipal by-law, license or agreement. Ordering wires underground.

(2) In this section and in sections 22f to 22j

Municipal wires.

Municipal
wires.

(a) "Lines" shall mean and include the wires, cables or other conductors used by a company for the purpose of conveying or distributing electricity or electrical power or energy, for telegraph, telephone, or electric light, heat or power purposes.

(b) "Company" shall include a municipal corporation or municipal commission, a partnership and an individual, owning, leasing, using or controlling lines in a city or town.

Construction
of tunnel
by municipal
corporation.

22f. Where the corporation of the city or town is willing to undertake the construction of a tunnel or conduits or other system for carrying lines underground in any highway or public communication or part thereof, the Commission upon such terms and subject to such conditions as it may prescribe may require all companies and persons whose lines are carried overhead upon any such highway or public communication to make use of such tunnel or conduits or other system for the purpose of carrying their lines and to pay to the corporation such compensation for the use thereof as may be agreed upon or as the Commission may determine, and such compensation may be either a lump sum or a sum to be paid annually or periodically, as the Commission may determine and direct.

Powers of
corporation
of city or
town.

22g. Where the corporation of a city or town desires to construct a tunnel, conduits or other system for the purpose mentioned in the next preceding section, it shall be lawful for the corporation to do so, and to exercise in respect thereof the powers of expropriation conferred upon the corporation by *The Municipal Act*.

Work sub-
ject to
direction of
Commission.

22h. All works undertaken under the provisions of the next preceding two sections shall be done in accordance with the directions and to the satisfaction of the Commission, and shall be maintained, kept in repair, altered, enlarged or improved to the satisfaction of the Commission, and as it may from time to time direct.

Penalty.

22i. If any order or direction of the Commission for discontinuing the use of overhead lines is not obeyed, the lines, poles and other structures in connection therewith upon the highway or public communication shall be deemed to be unlawfully erected and maintained, and may be removed by or under the direction of the Commission, and at the expense of the owner or user of them, and the company owning or using such lines shall incur a penalty of \$100 a day for the time during which the order of the Commission is disobeyed.

Joint order
by Commis-
sion and
Dominion
Railway
Board.

22j. Where lines, the construction or operation of which is authorized by this Legislature; and lines the construction of which is authorized by the Parliament of Canada, run through or into the same city or town, and the corporation of such city or town is desirous of having such lines placed underground, the Commission and the Board of Railway Commissioners for Canada, may, after the receipt of the applications hereinafter mentioned, by joint session or conference by them, hear and determine the application, and may order on such terms and conditions as they may prescribe any company constructing or operating lines in the city or town to place such lines underground, and may abrogate any right to carry lines on poles in such city or town, which may have been given by any Act or municipal by-law, license or agreement.

- (a) Any such company or any municipal corporation or other public body, or any person or persons interested, may file with the Secretary of the Commission, and with the Secretary of the Board of Railway Commissioners for Canada, the application for an order under this section, together with evidence of the service of such application, upon the company or companies interested or affected, and where the application is not made by the municipal corporation, upon the head of the municipal corporation within which the lines are situate.
- (b) The Chairman of the Commission and the Chairman of the Board of Railway Commissioners for Canada may make rules of procedure and practice, covering the making of such applications and the hearing and disposition thereof, and may vary, alter or rescind the same from time to time.
- (c) The Chairman of the Commission and the Chairman of the Board of Railway Commissioners for Canada may, from time to time, assign or appoint from each body the members comprising the joint Board that may be required to sit for the hearing and determining of such applications as they arise.
- (d) Any such order may be made a rule of the Exchequer Court of Canada, and may be enforced in like manner as any rule, order or decree of such Court.

10. Section 2 of *The Power Commission Amendment Act, 1911*, is amended by striking out the words "and an incorporated company" in the second line of clause (d) of that section, and inserting in lieu thereof the words "and incorporated company or an individual or firm." 1 Geo. V.
c. 15, s. 2,
amended.

11. The municipal corporations of the City of Hamilton; Villages of Certain municipal corporations
Norwich, Port Stanley, Mimico and Waterdown, and the Police Villages of
Baden, Beachville, Port Credit and Thamesford are added as parties to the
Second Part to the contract set out as Schedule "A" to *The Power Commission Act, 1909*, as varied and confirmed by the said Act, and as further
varied and confirmed by the Act passed in the tenth year of the reign of
His late Majesty King Edward the Seventh, chaptered 16, as amended by
this Act, and the said contract shall be binding
as to the City of Hamilton from the 31st of October, 1911;
as to the Village of Norwich from the 4th of March, 1910;
as to the Village of Port Stanley from the 6th of October, 1911;
as to the Village of Mimico from the 14th of October, 1911;
as to the Village of Waterdown from the 10th of October, 1911;
as to the Police Village of Baden from the 29th of August, 1911;
as to the Police Village of Thamesford from the 21st of November, 1911;
as to the Police Village of Beachville from the 1st day of February, 1912;
as to the Police Village of Port Credit from the 13th day of February, 1912. 9 Edw. VII.
c. 19, Sched.
"A."

12. The names of such municipal corporations are added to Schedule "B" Schedule to
to the said contract, and such Schedule shall be read as containing the par-
ticulars set out in Schedule "A" to this Act. contract
amended.

By-laws confirmed.
Hamilton.
Norwich.
Midland.
Mimico
Waterdown.

Port Stanley.
Thamesford.
Baden.
Beachville.
West Oxford.
Port Credit.
Toronto.

7 Edw. VII.
c. 19.

Contracts confirmed.

By-law No. 1193 of City of Hamilton confirmed.

10 Edw. VII.
c. 16, s. 5,
repealed as to Hamilton.

Contract between Commission and City of Hamilton confirmed.

By-law No. 210 of St. Mary's confirmed.

13. By-law No. 1165 of the Corporation of the City of Hamilton;
By-law No. 523 of the Corporation of the Village of Norwich;
By-law No. 772 of the Corporation of the Town of Midland;
By-laws Nos. 13 and 14 of the Corporation of the Village of Mimico.
By-laws Nos. 182 and 186 of the Corporation of the Village of Waterdown;

By-law No. 311 of the Corporation of the Village of Port Stanley;
By-law No. 16 of the Corporation of the Police Village of Thamesford;
By-law No. 485 of the Corporation of the Police Village of Baden;
By-law No. 8 of the Corporation of the Police Village of Beachville;
By-law No. 557 of the Corporation of the Township of West Oxford;
By-law No. 785 of the Corporation of the Police Village of Pt. Credit;
By-law No. 791 of the Corporation of the Township of Toronto,

are confirmed and declared to be legal, valid and binding upon such corporations and the ratepayers thereof, respectively, and shall not be open to question upon any ground whatsoever, notwithstanding the requirements of *The Power Commission Act*, or the amendments thereto, or of any other statute.

14. The contracts heretofore entered into by such corporations, respectively, with the Commission are confirmed and declared to be legal, valid and binding upon the parties thereto, respectively, and shall not be open to question upon any ground whatsoever, notwithstanding the requirements of *The Power Commission Act*, or the amendments thereto, or of any other statute.

- 15.—(1) By-law No. 1193 of the City of Hamilton, set out in the Schedule "B" to this Act, is confirmed and declared to be legal, valid and binding, and the Commission and the Corporation of the said City are authorized to do whatever may be necessary to carry out said by-laws and any contract entered into in pursuance thereof.

- (2) Section 5 of the Act respecting the Hydro-Electric Power Commission of Ontario, passed in the tenth year of the reign of His late Majesty King Edward the Seventh, chaptered 16, is repealed, so far as the same relates to the Corporation of the City of Hamilton, and any proceedings heretofore taken, and any by-law passed or contract entered into thereunder, is cancelled, and shall be void and of no effect.

- (3) The contract entered into between the Commission and the Corporation of the City of Hamilton, dated the 31st day of October, 1911, set out as Schedule "C" hereto, is confirmed and declared to be legal, valid and binding upon the parties hereto, respectively, and shall not be open to question upon any ground whatsoever, notwithstanding the requirements of *The Power Commission Act*, or the amendments thereto, or of the Act passed in the tenth year of the reign of His late Majesty King Edward the Seventh, chaptered 16, or any other general or special Act of this Legislature, or any by-law or agreement heretofore passed or entered into.

16. By-law No. 210 of the Municipal Corporation of the Town of St. Mary's, passed on the 23rd day of October, 1911, for raising \$15,000 for electric light and power purposes, is confirmed and declared to be legal, valid and binding, notwithstanding any defect in substance or form therein or any irregularity in the manner of passing the same, and the debentures issued as provided by the said by-law shall be legal and valid and binding upon the said corporation and the ratepayers thereof.

SCHEDULE "A."

Additions to Schedule "B" to the Contract set out in Schedule "A," 9 Edw. VII, C. 19.

Name of Municipal Corporation.	Quantity of Power applied for in H.P.	Maximum Price of Power at Niagara Falls.	Number of Volts.	Estimated Maximum Cost of Power ready for distribution in Municipality.	Estimated Proportionate Part of Cost to Construct Lines, Transformer Stations and Works for nominally 30,000 H.P., with total capacity of 60,000 H.P.	Estimated of Proportionate Part of Line Loss and of Part Cost to Operate, Maintain Transformer Stations and Works for nominally 30,000 H.P., with total capacity of 60,000 H.P.
Hamilton	2,000	.....	.....	\$17 32	\$104,760	\$9,784 00
Norwich	150	.....	.....	30 00	20,832	1,875 00
Port Stanley	50	.....	.....	79 89	33,375	1,589 00
Mimico	50	.....	.....	30 74	7,448	635 00
Waterdown	50	.....	.....	37 50	11,540	736 00
Baden	40	.....	.....	36 95	8,316	620 00
Thamesford	100	.....	.....	48 73	33,556	1,987 00
Beachville	80	.....	.....	33 89	15,788	1,043 00
Port Credit	30	.....	.....	36 79	7,146	408 00

SCHEDULE "B."

BY-LAW No. 1193.

To authorize the Corporation of the City of Hamilton to enter into a contract with the Hydro-Electric Power Commission of Ontario, varying the Agreement appended as a Schedule to By-law No. 906.

The Council of the Corporation of the City of Hamilton enacts as follows:—

1. The Mayor and City Clerk are hereby authorized and directed to execute, under the Corporate Seal of the City of Hamilton, the contract with the Hydro-Electric Power Commission of Ontario, appended as a Schedule to this By-law, varying the agreement appended to By-law No. 906, passed by this Council on the 29th day of November, 1909.

Passed this 31st day of October, A.D., 1911.

GEO. H. LEES,
Mayor.

S. H. KENT,
City Clerk.

SCHEDULE.

This Indenture made the 31st day of October, 1911.

Between

The Hydro-Electric Power Commission of Ontario (hereinafter called the "Commission") of the first part,

and

The Corporation of the City of Hamilton (hereinafter called the "Corporation") of the second part.

Whereas the parties hereto, by an agreement appended as a Schedule to By-law No. 906 of the Council of the Corporation of the City of Hamilton, passed on the 29th day of November, 1909, entered into a contract for the supply, by the Commission to the Corporation, of electric power, and it was therein provided that at any time prior to the 31st day of December, 1910, the Corporation may agree with the Commission to vary such contract in such manner that the Corporation shall be entitled to all rights and benefits of the agreement dated the 4th day of May, 1908, being Schedule "A" of *The Power Commission Act, 1909*, made between the Commission and the Municipal Corporation of Toronto and others, and on the 28th day of November, 1910, application was made by resolution of the Council of the Corporation to extend the time to enter into such agreement until the 31st day of December, 1911, and the time was extended by the Commission.

Now this Indenture witnesseth that, in consideration of the premises, the parties hereto hereby agree as follows:—

1. The said agreement appended to said By-law No. 906 is hereby varied in the following manner:

(a) By striking out paragraph 1 (b) and inserting the following paragraph in lieu thereof:

“1.—(b) On the first day of June, 1910, to supply said power in quantities set forth in column 2 of said schedule, or, as a minimum, 40 per cent. less, if written notice of minimum required is given on or before 19th day of July, 1909, to the Corporations, within the limits thereof, ready for distribution at approximately the number of volts set forth in column 4 of said schedule, and approximately 25 cycles per second frequency.”

(b) By striking out paragraph 2 (b) and inserting in lieu thereof the following:—

“2.—(b) To take electric power exclusively from the Commission during the continuance of this agreement; provided, if the Commission is unable to supply said power as quickly as required, the Corporations may obtain the supply otherwise until the Commission has provided such supply, thereupon the Corporations may generate, store or accumulate electric power for emergencies, or to keep down the peak load of the power taken from the Commission, and nothing herein contained shall affect existing contracts between the Corporations and other parties for a supply of electric power, but the Corporations shall determine said contracts at the earliest date possible.”

(c) By striking out of paragraph 4 all the words after the word “hereto,” commencing with the words “Said Meters.”

(d) By striking out the letter (a) where it appears after the figures “10” in paragraph 2 (c) and 2 (e).

(e) By striking out paragraphs 10 (a), 10 (b), 10 (c) and 10 (d), and inserting in lieu thereof the following:—

“10. The Commission shall, at least annually, adjust and apportion the amounts payable by municipal corporations for such power and such interest, sinking fund, line loss, and cost of operating, maintaining, repairing, renewing and insuring the line and works.”

(f) By striking out the last sentence of paragraph 11, commencing with the words “No power,” and inserting in lieu thereof the following:

“No power shall be supplied by any municipal corporation to any railway or distributing company, or any other corporation or person without the written consent of the Commission.”

(g) By inserting the following paragraphs as 13 (a) and 13 (b):

“13. Each of the Corporations agrees with the other:

"(a) To take electric power exclusively from the Commission during the continuance of this agreement, subject to the provisos above set forth in paragraph 2 (b).

"(b) To co-operate, by all means in its power, at all times, with the Commission to increase the quantity of power required from the Commission, and in all other respects to carry out the objects of this agreement and of said Act."

(h) Section 13 shall be numbered 14, and section 14 shall be numbered 15.

(i) By striking out opposite the word "Hamilton" in the schedule appended to the said agreement in columns 2, 5, 6, and 7, the figures 1,000, 17.92, 84,384, and 3,620, and inserting in said columns respectively opposite the said word "Hamilton" in said schedule, the following figures: 2,000, 17.32, 104,760, 9,784.

2. The Corporation and the Commission shall be entitled to all rights and benefits of the said agreement of the 4th day of May, 1908, as if the Corporation was originally a party thereto.

3. To apply at the next session of the Legislature of Ontario to have the foregoing agreement validated, ratified and confirmed.

In witness whereof the Commission and the Corporation have respectively affixed their Corporate Seals under the hands of their proper officers.

SCHEDULE "C."

As amended by By-law No. 1193, passed on 31st October, 1911.

This Indenture made the 14th day of May, 1908.

Between

The Hydro-Electric Power Commission of Ontario, acting herein on its own behalf, and with the approval of the Lieutenant-Governor in Council (hereinafter called the Commission), party of the first part

and

The Municipal Corporations of Toronto, London, Guelph, Stratford, St. Thomas, Woodstock, Berlin, Galt, Hespeler, St. Mary's, Preston, Waterloo, New Hamburg, Ingersoll, and Hamilton (hereinafter called the Corporations), parties of the second part.

Whereas, pursuant to "an Act to provide for transmission of electrical power to municipalities," the Corporations applied to the Commission to transmit and supply such power from Niagara Falls and the Commission entered into contracts, hereto attached, with the Ontario Power Company of Niagara Falls (hereinafter called the Company), for such power at the prices set forth in the schedule, hereto attached, and the Commission furnished the Corporations with estimates, as shown in the schedules of the total cost of such power ready for distribution within the limits of the Cor-

porations, and the electors of the Corporations assented to By-laws authorizing the Corporations to enter into a contract with the Commission for such power, and the Commission have estimated the line loss and the cost to construct, operate, maintain, repair, renew, and insure a line to transmit, nominally, 30,000 horse power, with total capacity of 60,000 horse power of such power to the Corporations and have apportioned the part of such cost to be paid by each Corporation, as shown in said schedule.

Now, therefore, this Indenture witnesseth that, in consideration of the premises and of the agreements of the Corporations herein set forth, subject to the provisions of the said Act and of the said contracts, the Commission agrees with the Corporations respectively:

1.—(a) To construct a line to transmit the quantities of electric power, shown in column 2 of the said schedule from Niagara Falls to the Corporations shown in column 1 respectively.

(b) On the first day of June, 1910, to supply said power in quantities set forth in column 2 of said schedule, or, as a minimum, 40 per cent. less, if written notice of minimum required is given on or before 19th of July, 1909, to the Corporations, within the limits thereof, ready for distribution at approximately the number of volts set forth in column 4 of said schedule, and approximately 25 cycles per second frequency.

(c) At the expiration of three months' written notice, which may be given by the Corporations or any of them from time to time during the continuance of this agreement, to supply from time to time to the Corporations in blocks of not less than 1,000 horse power each additional power until the total amount so supplied shall amount to 30,000 horse power.

(d) At the expiration of nine months' like notice, which may be given by the Corporations, or any of them, from time to time, during the continuance of this agreement, to supply from time to time to the Corporations in blocks of not less than 1,000 horse power each additional power until the total amount so supplied shall amount to 100,000 horse power.

(e) To use at all times first-class, modern, standard, commercial apparatus and plant, and to exercise all due skill and diligence, so as to secure the most perfect operation of the plant and apparatus of the Corporation.

In consideration of the premises and of the agreements herein set forth, each of the Corporations for itself, and not one for the other, agrees with the Commission:

2. (a) Subject to the provisions of paragraph 2 (g) hereof to pay the Commission for the quantities of power shown in column 2 of said schedule, or 40 per cent. less as a minimum to be supplied at said date and for such additional power supplied or held in reserve upon such notices, the price set forth in column 3 of said schedule in twelve monthly payments, in gold coin of the present standard of weight and fineness, and bills shall be rendered by the Commission on or before the fourth and paid by the Corpora-

tion on or before the fifteenth of each month. If any bill remains unpaid for 15 days, the Commission may, in addition to all other remedies and without notice, discontinue the supply of such power to the Corporation in default until said bill is paid. No such discontinuance shall relieve the Corporation in default from the performance of the covenants, provisoes and conditions herein contained. All payments in arrears shall bear interest at the legal rate.

(b) To take electric power exclusively from the Commission during the continuance of this agreement; provided, if the Commission is unable to supply said power as quickly as required the Corporations may obtain the supply otherwise until the Commission has provided such supply, thereupon the Corporation shall immediately take from the Commission; and the Corporations may generate, store or accumulate electric power for emergencies, or to keep down the peak load of the power taken from the Commission, and nothing herein contained shall affect existing contracts between the Corporations and other parties for a supply of electric power, but the Corporations shall determine such contracts at the earliest date possible.

(c) To pay annually interest at four per cent. per annum upon its proportionate part of the moneys expended by the Commission on capital account for the construction of the said line, transformer stations and other necessary works shown, respectively, in column 6 of said schedule, subject to adjustment under paragraph 10.

(d) To pay an annual sum for its proportionate part of the cost of the construction of said line, stations and works, shown respectively in column 6 of said schedule, subject to adjustment under paragraph 10, so as to form in thirty years a sinking fund for the retirement of the securities to be issued by the Province of Ontario.

(e) To bear its proportionate part of the line cost and pay its proportionate part of the cost to operate, maintain, repair, renew, and insure the said line, stations, and works shown respectively in column 7 of said schedule, subject to adjustment under paragraph 10.

(f) To keep, observe and perform the covenants, provisoes, and conditions set forth in said contracts, intended by the Commission and the Company to be kept and observed and performed by the Corporations.

(g) To pay for three-fourths of the power supplied and held in reserve at said date and upon said notices, whether the said power is taken or not, and when the greatest amount of power taken for twenty consecutive minutes in any month shall exceed three-fourths of the amount during such twenty consecutive minutes, so supplied and held in reserve, to pay for this greater amount during that entire month. When the power factor of this greatest amount of power taken for said twenty minutes falls below 90 per cent., the Corporation shall pay for 90 per cent. of said power, divided by the power factor.

(h) To take no more power than the amount to be supplied and held in reserve at said date and upon said notices.

(i) To use at all times first-class, modern, standard, commercial apparatus and plant to be approved by the Commission.

(j) To exercise all due skill and diligence, so as to secure the most perfect operation of the plant and apparatus of the Commission and the Company.

3. If, as therein provided, the said contracts are continued until 19th of December, 1939, this agreement shall remain in force until that date.

4. Said power shall be three-phase, alternating, commercially continuous twenty-four hour power every day of the year except as provided in paragraph 6 hereof, and shall be measured by curve-drawing meters, subject to test as to accuracy by either party hereto.

5. The engineers of the Commission, or one or more of them, or any other person or persons appointed for this purpose by the Commission, shall have the right from time to time during the continuance of this agreement to inspect the apparatus, plant and property of the Corporations, and take records at all reasonable times on giving to the Corporation six hours' notice of the intention to make such inspection. The Corporations shall have a like right on giving a like notice to inspect the apparatus, plant and property of the Commission.

6. In case the Commission or the Company shall at any time or times be prevented from supplying said power, or any part thereof, or in case the corporations shall at any time be prevented from taking said power, or any part thereof, by strike, lock-out, riot, fire, invasion, explosion, act of God, or the King's enemies, or any other cause reasonably beyond their control, then the Commission shall not be bound to deliver such power during such time, and the corporations shall not be bound to pay the price of said power at Niagara Falls during such time, but the corporations shall continue to make all other payments, but as soon as the cause of such interruption is removed the Commission shall, without any delay, supply said power as aforesaid, and the corporations shall take the same, and each of the parties hereto shall be prompt and diligent in removing and overcoming such cause or causes of the interruption.

7. If, and so often as any interruption shall occur in the service of the Company, due to any cause or causes other than those provided for by the next preceding paragraph hereof, the Commission shall recover and pay to the Corporations as liquidated and ascertained damages and not by way of penalty, as follows: For any interruption less than one hour, double the amount payable for power which should have been supplied during the time of such interruption; and for any interruption of one hour or more, the amount payable for the power which should have been supplied during the time of such interruption and twelve times the last mentioned amount in addition thereto, and all moneys payable under this paragraph, when the amount thereof is settled between the Commission and the Company, may be deducted from any moneys payable by the Corporations to the Commission, but such right of deduction shall not in any case delay the said monthly payments.

8. The maintenance by the Commission of approximately the agreed voltage at approximately the agreed frequency at the substation in the limits of the Corporation shall constitute the supply of all power involved herein and the fulfillment of all operating obligations hereunder; and when voltage and frequency are so maintained the amount of the power, its fluctuations, load factor, power factor, distribution as to phase, and all other electric characteristics and qualities are under the sole control of the Corporations, their agents, customers, apparatus, appliances and circuits.

9. In case any municipal corporation, or any person, firm or corporation which shall contract with the Commission or with any municipal corporation for a supply of power furnished to the Commission by the Company, shall suffer damages by the act or neglect of the Company, and such municipal corporation, person, firm or corporation would, if the Company had made the said contracts directly with them, have had a right to recover such damages or commence any proceedings or any other remedy, the Commission shall be entitled to commence any such proceeding, or bring such action for or on behalf of such municipal corporation, person, firm or corporation, and notwithstanding any Acts, decision or rule of law to the contrary, the Commission shall be entitled to all the rights and remedies of such municipal corporation, person, firm or corporation, including the right to recover such damages, but no action shall be brought by the Commission until such municipal corporation, person, firm or corporation shall have agreed with the Commission to pay any cost that may be adjudged to be paid if such proceeding or action is unsuccessful. The rights and remedies of any such municipal corporation, person, firm or corporation shall not be hereby prejudiced.

10. The Commission shall, at least annually, adjust and apportion the amounts payable by municipal corporations for such power and such interest, sinking fund, line loss and cost of operating, maintaining, repairing, renewing and insuring the line and works.

11. If at any time any other municipal corporation, or, pursuant to said Act, any railway or distributing company, or any other corporation or person, applies to the Commission for a supply of power, the Commission shall notify the applicant and the corporations, parties hereto, in writing, of a time and place, and hear all representations that may be made as to the terms and conditions for such supply.

Without discrimination in favor of the applicants as to the price to be paid for equal quantities of power, the Commission may supply power upon such terms and conditions as may, having regard to the risk and expense incurred and paid and to be paid by the corporations, parties hereto, appear equitable to the Commission, and are approved by the Lieutenant Governor-in-Council.

No such application shall be granted if the said line is not adequate for such supply, or if the supply of the corporations, parties hereto, will be thereby injuriously affected, and no power shall be supplied within the limits of a municipal corporation taking power from the Commission at the time of such application, without the written consent of such corporation.

In determining the quantity of power supplied to a municipal corporation, the quantity supplied by the Commission within the limits of the corporation to any applicant, other than a municipal corporation, shall be computed as part of the quantity supplied to such corporation, but such corporation shall not be liable to pay for the power so supplied, or otherwise in respect thereof.

No power shall be supplied by any municipal corporation to any railway or distributing company, or any other corporation or person, without the written consent of the Commission.

12. It is hereby declared that the Commission is to be trustee of all property held by the Commission under this agreement for the corporations and other municipal corporations supplied by the Commission, but the Commission shall be entitled to a lien upon said property for all moneys expended by the Commission under this agreement and not repaid. At the expiration of this agreement the Commission shall determine and adjust the rights of the corporations and other municipal corporations, supplied by the Commission, having regard to the amounts paid by them, respectively, under the terms of this agreement, and such other considerations as may appear equitable to the Commission and are approved by the Lieutenant-Governor-in-Council.

13. Each of the Corporations agrees with the other: (a) To take electric power exclusively from the Commission during the continuance of this agreement, subject to the provisos above set forth in paragraph 2 (b).

(b) To co-operate by all means in its power, at all times, with the Commission to increase the quantity of power required from the Commission, and in all other respects to carry out the objects of this agreement and of said Act.

14. If differences arise between the corporations the Commission may, upon application, fix a time and place to hear all representations that may be made by the parties, and the Commission shall, in a summary manner, when possible, adjust such differences, and such adjustment shall be final. The Commission shall have all the powers that may be conferred upon a Commissioner appointed under the *Act respecting Enquiries Concerning Public Matters*.

15. This agreement shall extend to, be binding upon, and enure to the benefit of the successors and assigns of the parties hereto.

16. The Corporation of the City of Hamilton and the Commission shall be entitled to all rights and benefits of the said agreement of the 4th day of May, 1908, as if the Corporation was originally a party thereto, and shall apply at the next session of the Legislature of Ontario to have the foregoing agreement validated, ratified and confirmed.

In witness whereof the Commission and the Corporations have respectively affixed their corporate seals and the hands of their proper officers.

THE HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO,

Commissioners.

SCHEDULE "D".

Column 1	2	3	4	5	6	7
Name of Municipal Corporation.	Quantity of power applied for in H.P.	Maximum price of power at Niagara Falls.	No. of volts.	Estimated maximum cost of power ready for distribution in municipality.	Estimated proportionate part of cost to construct transmission line, transformer stations and works for nominally 30,000 H.P., with total capacity 60,000 H.P.	Estimated proportionate part of line loss and part cost to operate, maintain, repair, re-new and insure transmission line, transformer stations and works for nominally 30,000 H.P. with total capacity of 60,000 H.P.
Toronto	10,000	\$9.40 for power at 12,000 volts until 25,000 H.P., or more are taken, then \$9 for all. \$10.40 for power at 60,000 volts until 25,000 or more are taken, then \$10 for all. If power taken at higher voltage, price to be fixed by arbitration.	Number required by each corporation.	\$18 10	\$828,080	\$38,970
London	5,000			23 50	671,089	31,578
Guelph	2,500			24 00	347,420	16,350
Stratford.....	1,000			27 10	173,580	8,120
St. Thomas	1,500			26 50	244,140	11,490
Woodstock.....	1,200			23 00	155,350	7,310
Berlin	1,000			24 00	138,970	6,540
Galt	1,200			22 00	143,920	6,773
Hespeler	300			26 00	63,200	2,974
St. Mary's	500			29 50	95,677	4,502
Preston	600			23 50	80,530	3,789
Waterloo	685			24 50	98,460	4,630
New Hamburg	250			29 50	47,830	2,251
Ingersoll	500			24 00	69,485	3,270
Hamilton	2,000			17 32	104,760	9,784

AGREEMENTS

During the fiscal year, agreements for a supply of power have been made with the municipalities of Port Credit, Coldwater, Acton, Barrie, Collingwood, Caledonia and Port Dalhousie.

RIGHT OF WAY

High Tension Lines

All claims for damages to land and property resulting from the construction of the High Tension Transmission System, which had not been settled during the periods covered by previous reports, were adjusted during the latter part of 1911, and the first part of 1912. The Right of Way Staff was then reduced to a chief agent, who arranged for the distribution and erection of gates in the fences along the cross country patrol routes as previously provided in the agreements and easements. It was decided to arrange as far as possible with the land owners along the line for the necessary posts, wire, material and labor to complete the installation of these gates. Accordingly, satisfactory arrangements made for the erection of some five hundred gates, the owners of the land undertaking to transport the gates from the distributing point to where they were to be installed, supply additional material and erect them at a price per gate previously agreed upon, which was to be paid when the work was completed.

Low Tension Lines

During the past year approximately one hundred and sixty miles of low tension pole lines have been constructed. To provide for these constructions easements and leases were secured from the various landowners as well as townships, where the route adopted for the transmission line bordered the highway, for the erection of poles and trimming of trees.

The agreements were similar to those secured during the previous year, and provided for the construction of the lines from Waubauskene to Collingwood, Barrie and Coldwater in the Severn District; Morrisburg to Prescott in the St. Lawrence District, and Dundas to Caledonia and Cayuga as well as from St. Thomas to Port Stanley in the Niagara District.

CROSSINGS

In addition to the privileges just mentioned, sanction was secured from the Board of Railway Commissioners at Ottawa for one hundred and twenty-five steam or electric railway, telephone or telegraph crossings. Blue prints were prepared of each of these crossings which, together with the formal application to the Company whose lines it was desired to cross, as well as other correspondence, involved a large amount of work. Provided that the parties interested consented, it was possible to make the crossing as provided under the Amendment to the Railway Act of 1910; otherwise, particularly in instances where a controversy occurred, application and additional blue prints were submitted to the Board of Railway Commissioners at Ottawa for consideration and, after proper investigation, an order secured authorizing the crossing.

UNDERGROUND CONSTRUCTIONS

The cities of Hamilton and Ottawa, acting in accordance with the powers granted them in the Power Commission Amending Act of 1912, made the following applications in the early part of the year for an order directing the power, telephone and telegraph companies in their respective cities to place their wires underground in certain streets.

Three joint meetings were held at Hamilton, Toronto and Ottawa to discuss the Hamilton application upon which action will shortly be taken.

Action is now pending on the Ottawa application.

Joint Application of the City of Ottawa

THE BOARD OF RAILWAY COMMISSIONERS FOR CANADA

and

THE HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO.

The Corporation of the City of Ottawa hereby declares that it is desirous and willing to undertake the construction of a tunnel or conduits or other system for carrying lines of wires for the transmission of electricity in the following highways or parts of highways in the City of Ottawa, that is to say, on

Bank Street, from Wellington Street to Gladstone Avenue;

Wellington Street, from Bank Street to Lyon Street;

Queen Street, from Elgin Street to Bank Street;

Rideau Street, from Mackenzie Avenue to King Edward Avenue;

Dalhousie Street, from Rideau Street to St. Andrew Street;

and hereby applies to the Board and the Commission, in joint session, for an Order directing the construction, maintenance, repair and regulation of such tunnel or conduits or other system, and for an Order directing all companies and persons whose lines for the transmission of electricity are carried overhead upon any of the said highways, or the said parts thereof, to make use of such tunnel or conduits, or other system, for the purpose of carrying their said lines, and providing that compensation be paid to the said Corporation for the use thereof by the said companies or persons, and for an Order abrogating any right possessed, or enjoyed by any such company or person to carry lines for the transmission of electricity on poles on any of the said highways, or parts of highways, under any Act or Municipal By-law, License or Agreement, and states:—

1. That the said Corporation is the Municipal Corporation of the City of Ottawa, having the control of and jurisdiction over the said highways and parts of highways.

2. That it is necessary and expedient, for the protection of life and property and for the convenience of the public, that the use of overhead lines for the transmission of electricity upon the said highways and parts of highways should be discontinued.

3. That the following Companies or Corporations have overhead lines for the transmission of electricity on the said highways and parts of highways, that is to say:—

The Great North Western Telegraph Company,

The Ottawa Electric Railway Company,

The Canadian Pacific Railway Telegraph Company,

The Ottawa Electric Company,

The Bell Telephone Company,

The Corporation of the City of Ottawa.

Dated this first day of June, A.D. 1912.

(Signed) TAYLOR McVEITY,

Solicitor for the Corporation of the
City of Ottawa.

Joint Application of the City of Hamilton

THE BOARD OF RAILWAY COMMISSIONERS FOR CANADA

and

THE HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO.

The Corporation of the City of Hamilton, pursuant to *The Power Commission Act of 1912*, hereby applies to "The Board of Railway Commissioners for Canada" and "The Hydro-Electric Power Commission of Ontario," for an Order directing the Hamilton Electric Light and Cataract Power Company, Limited, and The Hamilton Cataract Power, Light and Traction Company, Limited, to remove their poles, wires and cables from the following portions of streets in the City of Hamilton, namely:—

Catharine Street, from Jackson Street to Rebecca Street;
 John Street, from Hunter Street to Rebecca Street;
 Hughson Street, from Hunter Street to Jackson Street;
 Hughson Street, from King Street to Gore Street;
 James Street, from Herkimer Street to Stuart Street;
 McNab Street, from Main Street to Vine Street;
 Charles Street, from Main Street to King Street;
 Park Street, from Main Street to Merrick Street;
 Bay Street, from Main Street to York Street;
 Jackson Street, from James Street to Catharine Street;
 Main Street, from Bay Street to Catharine Street;
 King Street, from Sophia Street to Wentworth Street;
 York Street, from Bay Street to James Street;
 King William Street, from James Street to Hughson Street;
 Rebecca Street, from James Street to Catharine Street;
 Merrick Street, from James Street to Park Street;

as shown on the map or plan prepared by E. J. Sifton, Consulting Engineer of "The Hydro-Electric Department" of the Corporation of the City of Hamilton, and directing that the said lines, wires and cables of the Company be placed and carried in underground conduits.

The Corporation of the City of Hamilton states as follows:—

1. That the above named portions of the streets are situated in that part of the City where the traffic upon the City highways is very great; that the maintenance of the poles, wires and cables upon said portions of streets, interferes with such traffic and is dangerous to the members of the Fire Department and incommodes such members in case of fire, and renders the appearance of such portion of streets unsightly, and it is necessary and expedient for the protection of life and property and for the convenience, safety and welfare of the public, that the use of all overhead lines upon the said portions of highways should be discontinued.

2. That poles, wires and cables of the following companies, namely:—

The Bell Telephone Company of Canada,
 The Great North Western Telegraph Company of Canada,
 The Canadian Pacific Railway Company's Telegraph,

are also maintained on the said portion of streets, or certain parts thereof.

3. The Corporation of the City of Hamilton has entered into an agreement with the Hydro-Electric Power Commission of Ontario for the supply of electric power to the City Corporation, and on the 14th day of August, 1911, the Corporation of the City of Hamilton passed By-law No. 1,165 to provide for the issue of debentures to the amount of \$505,160 for the cost of a plant to distribute electric energy and light, the power therefor to be supplied by "The Hydro-Electric Power Commission of Ontario,"

and the estimates of the intended expenditure, for the complete works, plant, machinery and appliances for the operation of street lighting, commercial lighting and residence lighting, and power requirements, as set forth in said by-law, are as follows:—

Conduit (underground) service	\$95,373 00
Estimated cost of service for same	3,200 00
Cables, drawing and splicing	48,980 00
Primary wood pole distribution	29,994 00
Sub-station and equipment	54,450 00
Line transformers	14,500 00
Meters	15,750 00
High-tension interswitching station	5,300 00
Concrete distribution poles and lights	99,540 00
Iron 5-light ornamental Tungsten standards	30,000 00
Iron 1-light ornamental Tungsten standards	6,220 00
Establishment expenses	62,350 00
Secondary wiring and street lights	26,544 00
Secondary wiring, residence lights	8,000 00
Secondary power service lines	3,675 00
	\$503,878 00

4. The City Corporation contemplates placing and carrying the lines, wires and cables of its power and lighting systems upon those portions of streets before mentioned in underground conduits.

5. Contemporaneously with this application, applications will be made to "The Board of Railway Commissioners for Canada," for similar orders respecting the poles, wires and cables of "The Bell Telephone Company of Canada" and "The Great North Western Company," and "The Canadian Pacific Railway Company's Telegraph" before mentioned.

Dated at the City of Hamilton this 25th day of April, 1912.

(Signed) F. R. WADDELL,

Solicitor for the Corporation of the
City of Hamilton.

CHAPTER II

TRANSMISSION SYSTEM

STATIONS

Niagara System

Niagara Falls Transformer Station (No. 1)

The Canadian Westinghouse Company is installing out-door 110,000 volt line oil switches to operate in conjunction with the line oil switches originally furnished on its contract. These circuit breakers are provided with resistances across their terminals and are so arranged to open an instant before the opening of the breakers inside the station. The installation of this apparatus will improve the service. Some modifications in the 110,000 volt hood construction was required to protect this out-door equipment from the weather.

Construction is now under way on the permanent arrangement of water resistances which connect the neutrals of the main transformer banks to "Ground."

Owing to the fact that the cooling water required for the transformers, which has heretofore been purchased from the Corporation of the City of Niagara Falls, with a connection with the Ontario Power Company for emergency use, has entailed considerable expense, further experiments were made towards procuring additional water on the Commission's site, with the result that a well was sunk and pumping equipment provided. At the present time this well with the aid of the sprinkling tank provides sufficient water without relying on the City or the Ontario Power Company. There still is, however, connection with both these other sources for emergency use.

In order to facilitate the shifting of the transformers from one pocket to another in case of emergency it was considered advisable to purchase a duplicate transfer truck. The new truck is fitted with roller bearings, and with it the transformers can be handled more expeditiously.

Tenders were called for the supply and erection of an additional bank of three 3,000 kv-a. transformers and a spare unit with the requisite 12,000 volt and 110,000 volt switching equipment. Proposals were received from the Canadian General Electric Company, Siemens Company of Canada and the Canadian Westinghouse Company. After careful consideration of each tender, the contract for the equipment was awarded to the Canadian Westinghouse Company. According to the terms of the contract this apparatus will be installed before the end of the present calendar year. The equipment will be similar to that originally furnished by this Company with the exception that some improved features of design are embodied. These improvements are the result of two years' operation of the apparatus originally installed.

For the purpose of supplying power to the additional transformers it was necessary that an additional feeder consisting of two three-conductor 300,000 c.m. 12,000 volt cables be provided connecting the station with that of the Ontario Power Company. Specifications were sent to different cable manufacturers in America as well as in Europe. The contract was awarded to the Canadian British Insulated Company, the price including the drawing of the cables into the conduit. The cable has arrived at Niagara Falls and the contractor's workmen are at the present time engaged installing it.

Dundas Transformer Station (No. 2)

In order to take care of the increased number of municipalities being supplied from this station, it was decided to provide additional outgoing 13,200 volt feeders as well as to increase the transformer capacity. Tenders were called for equipment required for four additional feeders and switching equipment for an additional bank of transformers. The Canadian Westinghouse Company will supply and erect the 13,200 volt transformer and feeder switching equipment as well as the requisite 110,000 volt switching apparatus, whereas the Siemens Company of Canada will supply the protective equipment for the four feeders, the latter to be installed by the Commission. As the installation of portions of this equipment will be more or less hampered by the operation of the station it was considered advisable to install the portions most affected by the construction force.

Upon investigation it was found possible to install the six 1,250 kv-a. transformers which are being removed from Toronto station in Dundas station with slight alterations to transformer supporting structures, so it was decided that these transformers would be transferred. The transfer of this apparatus will be affected by the Canadian General Electric Company who originally installed them in Toronto station. It is the intention to move the four 750 kv-a. transformers at present at Dundas station to Brant station this coming winter.

It was necessary to purchase an additional transfer truck for this station as that at present in use is not suitable for the transformers being brought from Toronto. The original truck, however, may be transferred to Brant Station with the transformers.

The installation of the resistance for the transformer neutral is being carried on concurrently with the other construction work.

An emergency 13,000 volt bus is being provided whereby, with the aid of disconnecting switches, it will be possible in case both banks of transformers should become disabled or should it be necessary, due to some unforeseen condition, to remove the transformers, to supply power to any or all of the 13,200 volt feeders served, from Guelph, Port Credit or Brant transformer stations.

A portion of the erection room area in this station has been partitioned off and a two-storey office has been provided for operating officials and to provide more room for the system operator, arrangements are at present being made to enlarge the control room.

City of Hamilton

Plans which were prepared by the local power department for their Trolley Street sub-station were considered and approved. A study is being made of and sketches being prepared for a combined transformer and switching station for the City to be located near the corner of Head and Sophio Streets.

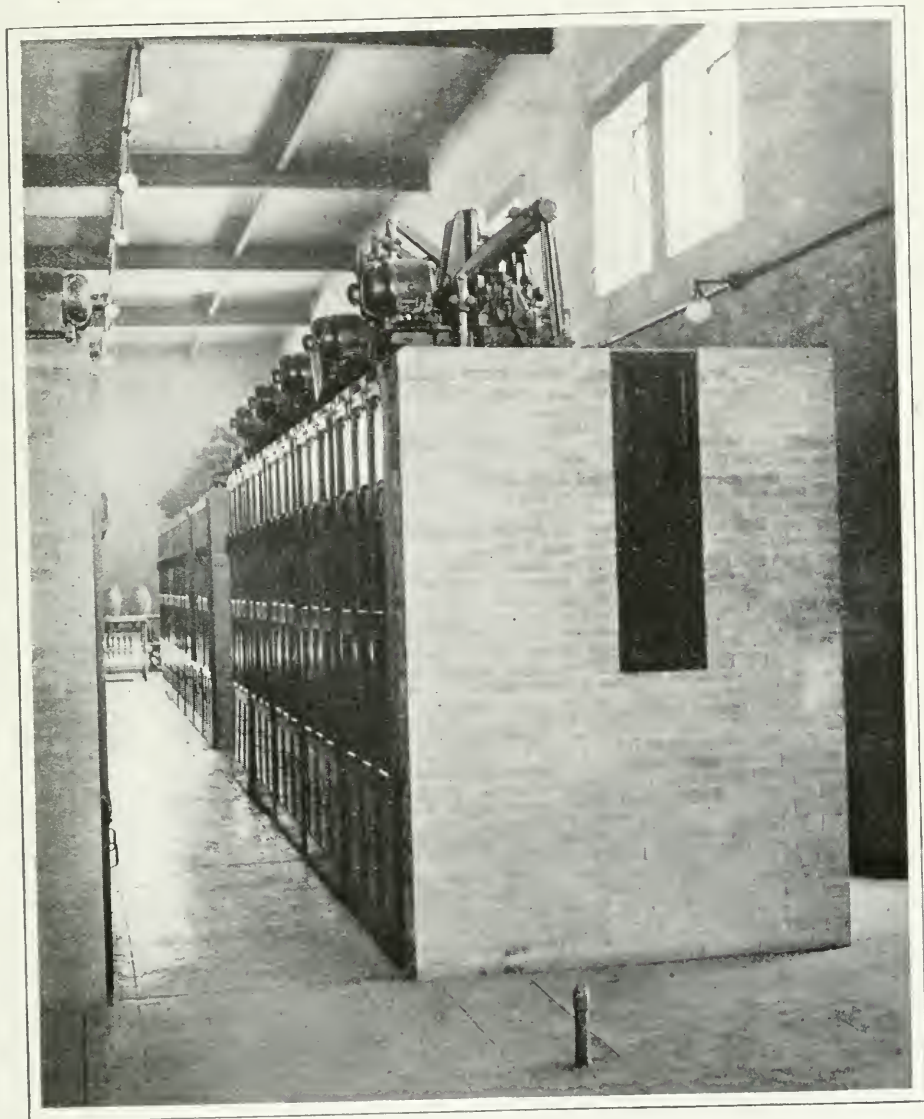
Provincial Hamilton Asylum

A recording wattmeter has been installed in the transformer station of the Hamilton Asylum in the City of Hamilton for measuring the power consumption.

Town of Dundas

Three transformers purchased for the Town of Dundas were temporarily installed in the transformer station to replace those purchased last year which had proven unsatisfactory. These are at the present time being permanently installed, the work being carried on in conjunction with the installation of the additional feeder equipment.

Specifications were prepared and tenders called for the equipment required for a transformer station for the John Bertram Co., and a report on the tenders received, submitted to the Bertram Company. The Town supplies this Company with power at 13,200 volts, and it is transformed to 575 volts for distribution around their plant.



Low Tension Switches, Toronto Station

Waterdown Distributing Station

The installation of equipment has been completed in the distributing station at the plant of the Dominion Sewer Pipe Co. near Waterdown. This station is equipped with three 75 kv-a. transformers and supplies power to the Village of Waterdown as well as to the Dominion Sewer Pipe Company. Owing to the fact that the latter is increasing its power demand, arrangements are being made to provide separate feeder panels for the Company and the Village.

Caledonia Distributing Station

A station equipped with three 150 kv-a. transformers and two 2,300 volt feeders was constructed in the Village of Caledonia. The building was constructed by local contractors. The switching and protective equipment was supplied by the Canadian Westinghouse Company and the transformers by the Pittsburg Transformer Company, through their Canadian agents, the Construction Supply Company. Power is supplied from this station over one feeder to the Alabastine Co., Ltd. and over the other to the Village. The site, building and equipment are all the property of the Commission.

Crown Gypsum Company

A recording wattmeter was installed at the plant of the Crown Gypsum Company, at Lythmore, for metering power which is supplied to the company at 13,200 volts. The transformers, switching and protective equipment for the station were supplied by the Company, preliminary drawings showing the arrangement of apparatus having been in general approved by the Commission.

Toronto Transformer Station (No. 3)

As the Toronto Electric Commissioners expected that the load on this station by the end of the present calendar year would be considerably in excess of the original capacity of the station, tenders were requested for seven single phase, 2,500 kv-a. transformers, it being the intention to install six in the space at present occupied by six 1,250 kv-a. units, to install the seventh as a spare unit, and to remove the present transformers to Dundas Station. The Canadian General Electric Company was awarded the contract for the supply and installation of the seven transformers as well as changes in switching equipment and wiring required on account of the increased capacity. The installation of this equipment is now in progress and unless unforeseen conditions will be completed in time to take care of the winter peak.

London Transformer Station (No. 4)

No additions were made at the station.

London Provincial Asylum

The installation of equipment purchased last year for the Department of Public Works was completed and the station placed in service. This equipment covered transformer station equipment consisting of three 75 kv-a. transformers, 13,200 and 575 volt switching and protective equipment.

Guelph Transformer Station (No. 5)

The installation of the 13,200 volt feeder equipment for supplying the Ontario Agricultural College was completed and placed in service in the spring of 1912.

Ontario Agricultural College

The installation of apparatus purchased last year was completed, as well as some minor additional equipment which was required by the College authorities.

Central Prison Farm

Specifications were prepared and tenders called for the supply of equipment necessary for a temporary sub-station for the Central Prison Farm, capable of delivering 75 kv-a. These specifications are now in the hands of the manufacturers, and as soon as the equipment is received the installation of same will be carried on by the construction force at the expense of the Prison Farm.

Acton Distributing Station

A contract was awarded for the construction of a distributing station building in the Village of Acton, on a site provided by the Village. The equipment purchased from Siemens Company of Canada and intended for Baden has been shipped to Acton, and installation of same will be proceeded with just as soon as the building has been completed. The equipment consists of switching and protective apparatus for one incoming 13,200 volt line, three 75 kv-a. transformers stepping down to 2,300 volts and one feeder panel with indicating and recording meters. The contract for the building was awarded to J. McKenzie, of Acton.

Village of Acton

Tenders were called covering the supply of a constant current street lighting transformer for the Village, this apparatus to be installed in the local station. A letter has been sent to the Village with recommendation.

Preston Transformer Station (No. 6)**Town of Preston**

Specifications were issued covering the supply of three additional transformers with requisite switching equipment for the Corporation's transformer station. Tenders were received and a report made to the Corporation.

Town of Galt

Tenders were obtained on some additional transformer station switching equipment for the local power Commission, also the necessary contracts were prepared, which were signed. This work is now under way and should be completed in a short time.

Specifications were prepared and tenders called for the supply and erection of two 800 Imperial gallon 270 ft. head pumps, direct connected to a 250 kv-a. synchronous motor, as well as piping, switchboard and accessories for the local Water Commission. The necessary contracts were prepared and the work is now under way. The pumps, valves and piping will be supplied by the Canada Foundry Company, the pumps being of Mather and Platt design, and the electrical equipment will be of Swedish General Electric Company manufacture, and supplied through Messrs. Kilmer, Pullen and Burnham, their Canadian representatives. The motor has a capacity considerably in excess of that required for driving the pumps. The extra capacity of the motor will be employed to correct the power factor of the Town's power load.

Berlin Transformer Station (No. 7)

Provision has been made in this station for quickly connecting a spare transformer for service, to replace any transformer in the bank which might become defective. Similar provision will be made in all the line stations in which only one bank of transformers and a spare is provided.

Baden Distributing Station

The Village constructed a building on a site provided by itself from designs furnished by the Commission. In this station three 20 kv-a. Canadian General Electric transformers with necessary switching and protective equipment were installed, the latter being purchased from the Canadian Westinghouse Company. The equipment originally purchased for this station was transferred to the Acton Distributing Station. During the construction of the station, temporary service was given the Village from New Hamburg.



Baden Distributing Station

Stratford Transformer Station (No. 8)

Provision was made inside the station for supplying power over either of the two lines running to the towns of Mitchell and Seaforth from one 13,200 volt oil switch.

Town of Seaforth

The installation of the equipment for the Town's transformer station as well as the construction of the building was inspected and a constant current street lighting transformer was purchased for the Town.

Town of Mitchell

A meter panel containing recording wattmeter and power factor meter was installed in the transformer station of the Town of Mitchell for metering the Town's power consumption.

St. Mary's Transformer Station (No. 9)**St. Mary's Portland Cement Co. Distributing Station**

Specifications were prepared for the supply of three 500 kv-a. single phase, water cooled transformers and necessary switching and protective equipment for supplying the St. Mary's Portland Cement Company with 575 volt power, delivery to the station being made at 13,200 volts. Contracts were awarded for the transformers to the Canadian General Electric Company and the switching and protective apparatus to the Canadian Westinghouse Company. Power is now being supplied to the Company through this station. The Company provided the necessary building, and the Commission the equipment. This company was desirous of obtaining power in advance of the completion of the distributing station and in order that their wishes might be gratified, a temporary installation was made consisting of six 75 kv-a. transformers at the Company's plant and supplied them with power two months in advance of the completion of the station proper.

Woodstock Transformer Station (No. 10)

Only one feeder oil switch was provided for supplying power to Norwich and Tillsonburg and provision was made inside the station for supplying power over either of the two 13,200 volt lines running to these municipalities from the one oil switch.

A small pump was installed in the basement of the station to pump water from the sump.

Town of Tillsonburg

A recording watt-meter was installed in the town's transformer station. The power was originally measured at Woodstock, but as Norwich is supplied over the same lines as Tillsonburg metering apparatus was required in each town.

Norwich Distributing Station

The Village of Norwich constructed a building in accordance with drawings furnished on a site provided by itself for housing the Commission's step-down equipment. The apparatus for this station, the purchase of which was covered by the last report was installed and the station placed in service. The equipment consists of 13,200 volt switching and protective equipment for one incoming line, three 50 kv-a. single-phase self-cooled transformers, which step the voltage down to 2,300 volts, and one three-phase 2,300 volt feeder panel with indicating and recording meters. In the case of villages, power is supplied at 2,300 volts, which necessitates no transformer stations for the villages. In order to supply the village with 2,300 volt power in advance of the completion of the installation of the equipment, a temporary installation of two 20 kv-a. transformers was made at the Woodstock station and power delivered to the village at 2,300 volts over a 13,200 volt line.

Beachville Distributing Station

A building was constructed, and equipment identical to that provided at Norwich Distributing Station was installed. During the construction of the building temporary service was supplied from Ingersoll.

St. Thomas Transformer Station (No. 11)

The only additions to the equipment in this station has been a feeder panel and oil switch, also equipment required for supplying two outgoing feeders from one oil switch. Construction work, in the station, on these changes has been started. When this work is completed the lines to Port Stanley and London and Lake Erie Railway and Transportation Company shall each have an oil switch, and the two lines to the Corporation of St. Thomas will be supplied by one oil switch.

Corporation of St. Thomas

Specifications were prepared and tender called for the supply of a motor-driven turbine pump for the local water commission for use in connection with an aerator. The specifications called for a pump capable of delivering 2,100 Imperial gallons per minute against a head of, approximately, 60 feet, and direct connected



Port Credit Station

to a 2,200 volt induction motor. The equipment finally purchased consisted of a Canadian Boxyng Pump and a Lancashire motor. A bank of three 50kv-a. transformers, stepping down from 13,200 to 2,200 volts with requisite switching apparatus was installed in the Transformer Station at St. Thomas. This equipment is the property of the Corporation. The apparatus was purchased from the Canadian General Electric Company, and installed by the construction force.

Port Stanley Distributing Station

The apparatus referred to in the last Annual Report was installed and placed in operation during the year. The equipment is similar to that installed in Norwich Distributing Station.

Corporation of Port Stanley

Tenders were obtained on a motor-driven pumping unit for the local water system. The unit specified consisted of a turbine pump with a capacity of 350

gallons, 260 ft. head, direct connected to a 2,200 volt induction motor. The Canada Foundry Company secured the contract; the pump being of the Mather and Platt type, and the motor being manufactured by the Canadian General Electric Company.

London and Lake Erie Railway and Transportation Company

There were some changes necessary in the equipment of this Company's Power Station at St. Thomas to adapt it to hydro-power the necessary 13,200 volt switching and protective equipment was therefore purchased for the Company. The Commission also purchased for installation in the Company's station a panel containing a recording wattmeter and a watthour meter for measuring the Company's load.



Mimico Distributing Station

Port Credit Transformer Station (No. 13)

There were several details, such as fencing and grading of station site and finishing of floors (which had not been completed during the last fiscal year), attended to during the late fall of 1911. The water system was also completed. The transformer water flows by gravity from a natural basin in a creek about 600 feet from the station to a well from which it is pumped through the transformers. The water is then returned to the well or to the creek as is desired for regulation.

Port Credit Brick Company

A recording wattmeter with 13,200 volt current and potential transformers was installed at the transformer station of this Company in Port Credit.

Corporation of Brampton

The construction of the building and installation of equipment at the Municipal Station was completed. This work was carried on under the direction of this department.

Mimico Distributing Station

A station was built and equipped at New Toronto with a capacity of 225 kv-a. for supplying the Village of Mimico and Mimico Asylum. The site was purchased by the Commission, the contract for building awarded to George Coxhead, a local contractor, and the contract for electrical apparatus awarded to the Canadian General Electric Company. This station is provided with two complete 2,300 volt feeder equipments.

Port Credit Distributing Station

A station was constructed in the Village of Port Credit and equipment similar to that at Mimico Distributing Station installed. The building was constructed with two rooms, one to house the Commission's apparatus and the other for Municipal uses. The village paid one half the cost of the building.

Cooksville Distributing Station

Two 20 kv-a. single phase transformers stepping down from 13,200 to 2,300 volts for distributing in Cooksville and the vicinity were installed in the Port credit station. By the use of this equipment it was possible to supply power to the Villages of Mimico and Port Credit in advance of the completion of the stations at these two points.

Corporation of Milton

Tenders were called covering three 250 kv-a. transformers with requisite switching and protective equipment for the town's step-down station. Tenders have been submitted to the Corporation with recommendations. As soon as these are acted upon contracts will be placed.

Brant Transformer Station

Specifications were drawn up and tenders called covering the 110,000 and 13,200 volt switching and protective equipment for a proposed new station to supply Brantford, Paris, and the surrounding country.

Drawings and specifications were also prepared for the building required. These were sent out to different contractors in Brantford and Paris and tenders requested.

Severn System

Penetanguishene Distributing Station

The contracts for building and equipment referred to in the last report were completed and the station placed in service. The Town of Penetanguishene has installed a switchboard in the station for their distribution system.

Corporation of Penetanguishene

The motor driven turbine pump which was ordered last year on recommendation, tenders having been called, was placed in service.

Midland

A recording wattmeter was installed in the Midland Transformer Station of the Simcoe Railway and Power Company for metering the power used by the town.

The motor driven turbine pump ordered by the town last year, on recommendation, was placed in service.

Barrie Distributing Station

Equipment has been ordered for stepping down from 22,000 volts, 3 phase to 2,300 volts, 2 phase, for supplying to Town of Barrie. The apparatus consists of two 350 kv-a. single phase transformers and 22,000 volt switching and protective devices. The power will be measured here at 2,300 volts. The tenders for equipment for this station, as well as that required for Collingwood and Coldwater stations, were obtained. The Canadian General Electric Company will supply transformers and switching apparatus for the three stations, and Siemens Company of Canada the protective equipment. The present power station of the Town of Barrie will be used to house the equipment.

Corporation of Barrie

The contract for distributing station equipment was made to include potential regulators and power and lighting feeder panels for the town. The town will pay for this equipment.

Specifications are at present in course of preparation for motor driven pump equipment for the town, this to include pumps for domestic as well as fire service.

Collingwood Distributing Station

Three 250 kv-a. transformers to step the voltage from 22,000 volts, 3 phase to 2,300 volts, 3 phase, have been ordered, also 22,000 volt switching and protective equipment. A building large enough to house the Commission's apparatus, as well as the distribution equipment for the town, is being constructed by H. G. Wynes, a local contractor.

Corporation of Collingwood

The contract for apparatus for this station also includes potential regulators. These are to be purchased by the town.

Specifications are in course of preparation for motor driven pumping equipment for the town.

Coldwater Distributing Station

The equipment ordered for their station consists of three 75 kv-a. transformers stepping down from 22,000 volts, 3 phase to 2,300 volts, 3 phase, as well as the full complement of switching and protective devices. The building necessary to house the equipment is being constructed by J. Sawyer, a local contractor.

Elmvale Distributing Station

The specifications for equipment and a building for Elmvale have been prepared. The building and equipment will be similar to that at Coldwater.

Port Arthur System**Port Arthur Station**

The water cooling system at this station has been augmented by an additional pump. This was considered necessary because of the increased capacity of the station.

The Corporation of Port Arthur was granted the right to install in the Commission's station a 750 k.w. motor generator set, for operating the local street railway: this set being a duplicate of the one already in service.

General**Storehouse and Testing Laboratory**

It was decided during the year to construct a storehouse, testing laboratory and garage combined, on Garrison Commons adjacent to Transformer Station. Accordingly the necessary drawings and specifications were prepared and tenders called for the construction of the building. The general contract was awarded to Messrs. Witchall & Son, who submitted the most advantageous tender, and the building is now well under way. It is the intention, however, to carry on this work as expeditiously as possible, so that it will be possible to occupy the building during the coming winter.

A 300,000 volt transformer purchased some time ago for testing purposes will be permanently installed in this laboratory.

In addition a contract was awarded to the Canadian Westinghouse Company for the supply of a transformer testing set, consisting of a transformer and regulator by which voltages from 1,000 to 75,000 can be obtained.

Machine Shop

A machine shop has been established in the basement of the Toronto Transformer station for development work and repairs. In this department switchboard fittings and miscellaneous station construction material is manufactured. A small stock of such material is kept for emergency use.

Grounding Switches

For the purpose of grounding 110,000 volt lines when they are cut out of service for repairs, grounding switches were installed in each of the transformer stations. These switches are easy to operate, and will be employed when required.

Parliament Buildings

At the request of the Department of Public Works specifications were prepared for two synchronous motors each direct connected to a 125 kw. direct current generator with switching equipment, also three 50 kv-a. transformers. The motor generators will be used for obtaining direct current power for the operation of the elevators, which are already installed and equipped with direct current motors. The transformers are to be used for stepping the voltage down from 2,200 volts as received from the Toronto-Hydro Electric System to 110/220 volts for lighting the Parliament Buildings. Tenders were called and when these were received they were considered and a report made to the Department of Public Works. The contract was awarded for the entire equipment to Messrs. Kilmer, Pullen and Burnham. A portion of the material is on the ground and the contractors promise to commence installation work immediately.

Standards

In order to expedite the purchase of equipment, standard specifications for such apparatus as possible were prepared. These cover transformers of both station and pole types for all voltages from 2,200 up to 30,000. Three phase motor specifications were also issued and work is well advanced in the standardization of building and pole line details.

Lightning Protection

Considerable trouble has been experienced by the use of certain types of lightning arresters which have been installed in different parts of the system. Investigations have been made, experiments performed and as a result designs for a 13,200 volt arrester have been prepared from which one will be constructed and tried out in the system.

Service Transformers

An engineer visited the works of different transformer manufacturers in Canada and in the United States for the purpose of investigating and inspecting their methods of manufacture. A report was made dealing with the detailed construction of each type. This report will, no doubt, prove valuable in the purchase of transformers for distribution purposes.

WOOD POLE TRANSMISSION LINES.

General

During the past year approximately 160 miles of wood pole lines were built. These constructions necessitated the employment of an average of six gangs of

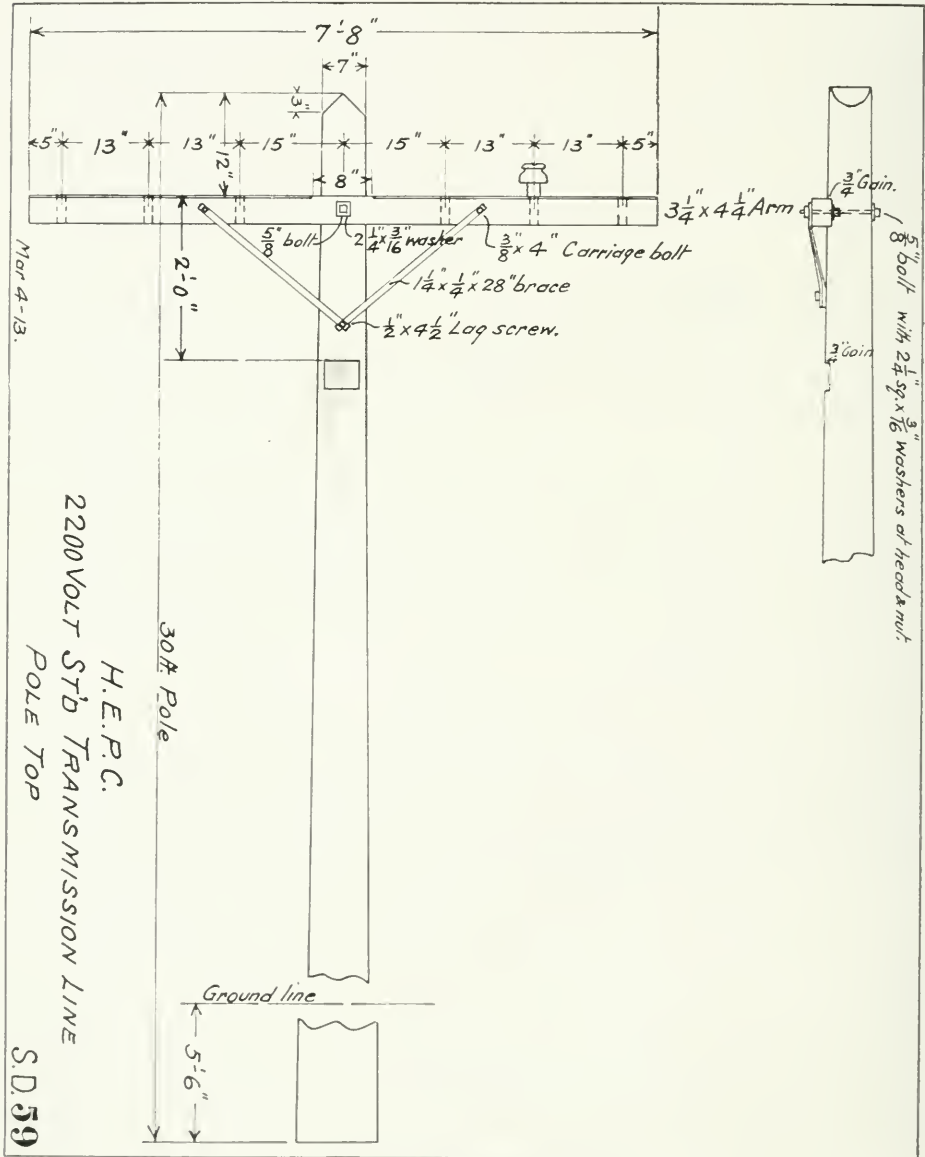


Diagram of 2,200 Volt Pole Top

men, each consisting of a foreman, time-keeper and from fifteen to twenty hands. The Construction Department also located the lines, surveyed private right of way and superintended the construction of these lines.

volt, 13,200 volt and 22,000 pole tops. The construction employed is generally as follows:—for 2,200 volt distributing lines 30 ft. native cedar poles, with 4 or 6 pin cross arms, locust top pins, porcelain insulators, and bare or D.B.W.P. copper wire; for 13,200 volt lines 40 ft. Idaho Cedar poles, with 4 and 2 pin Georgia

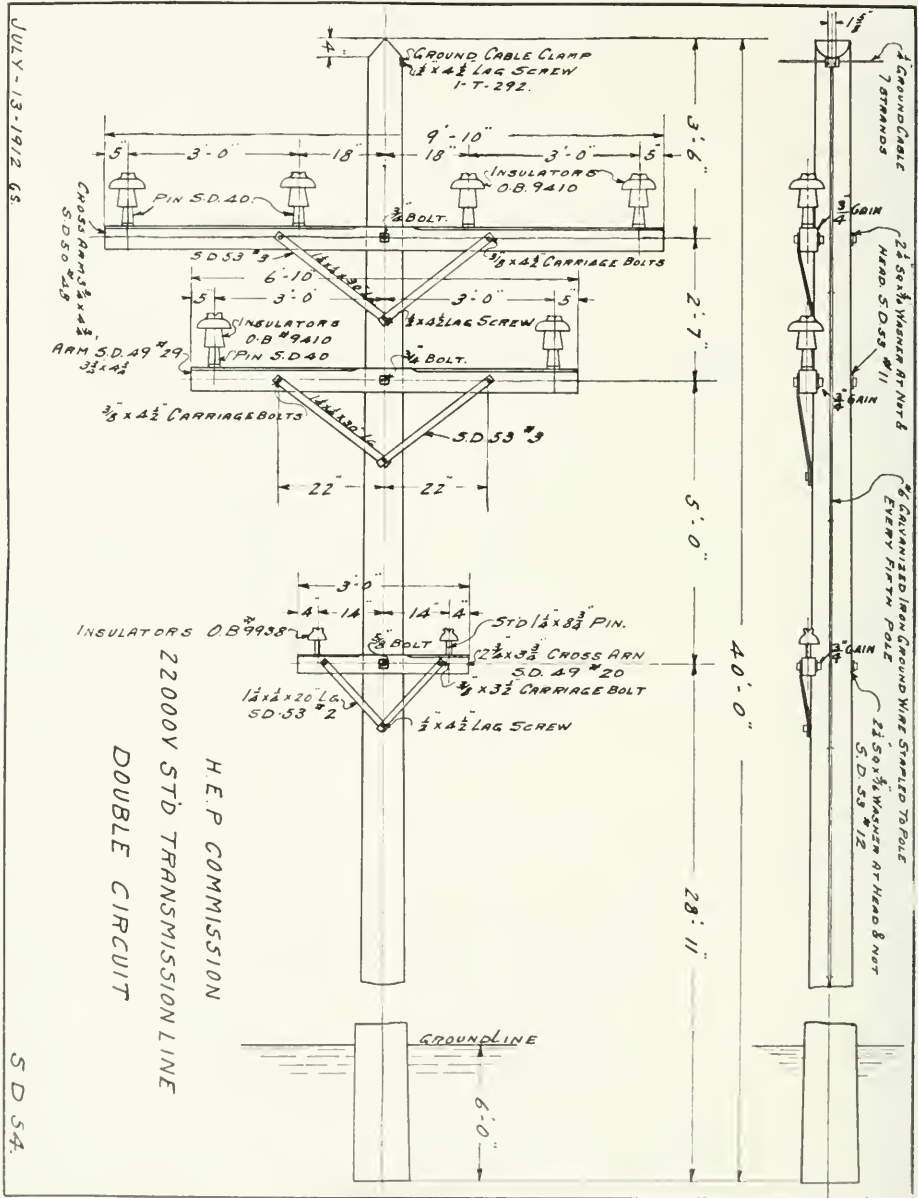


Diagram of 22,000 Volt Pole Top

pine power cross arms, locust top pins, porcelain insulators, aluminum power cables, 1/4 in. 7 strand galvanized steel ground cable erected on pole tops with ground cable clamps and a copper-clad steel telephone circuit carried on a two-pin cross arm.

Pole butts were treated to a brush coat of wood preservative to a height of 8 ft. from the bottom; cross arms were dipped in hot wood preservative and all hardware was galvanized.

Description of Lines

During the year construction work was started on approximately 160 miles of low tension lines, consisting of 75 miles 13,200 volt line extension to the Niagara System: 23 miles of 26,400 volt line from Morrisburg to Prescott, and 62 miles of 22,000 volt line from the Simcoe Railway and Power Company at Waubauskene, Ont., to the Municipalities of Barrie, Collingwood, Coldwater and Elmvale. The mileage of the various lines completed and under construction on Oct. 31, 1912, is as follows:—

Total Mileages of Lines

	Totals June, 1910, to Oct. 1911	Totals Oct. 31, 1911, to Oct. 31, 1912	Totals to Oct. 31, 1912
Total mileage of low tension lines.....	185.69	158.89	344.58
Total mileage of single circuit lines.....	66.46	158.89	225.35
Total mileage of double circuit lines	119.23	none	119.23
Total mileage of low tension telephone lines....	171.29	154.19	325.48
Total mileage of lines completed.....	173.17	50.99	236.68
Total mileage of line under construction.....	23.07	107.90	107.90
Total number of poles	8,256	7,222	15,478

The mileage of the lines tabulated according to the voltage of the circuits is as follows:—

Voltage	Single Circuit Totals				Double Circuit Totals				Totals			
	Oct. 31, 1911	Oct. 31, 1911 to Oct. 31, 1912	Oct. 31, 1912		Oct. 31, 1911	Oct. 31, 1911 to Oct. 31, 1912	Oct. 31, 1912		Oct. 31, 1911	Oct. 31, 1911 to Oct. 31, 1912	Oct. 31, 1912	
22,000.....	4.50	88.59	93.09	.....	.....	.....	.....	.....	4.50	88.59	93.09	.....
13,200.....	56.46	63.90	120.36	112.92	.....	112.92	.....	.....	169.38	63.90	233.28	.....
6,600.....	4.52	.....	4.52	5.79	.....	5.79	.....	.....	10.31	.....	10.31	.....
2,200.....	1.98	6.40	8.38	.52	.....	.52	.....	.....	2.50	6.40	8.90	.....

Description of Lines
Niagara System

Sec. No.	From	To	Miles	No. Poles	Voltage	No. Circuits	B. & S. Gauge Cable	Telephone B&S. Gauge	Work Started	Work Completed	In Operation
1	Dundas Sub. H.E.P.C.	Junction Pole No. 134.	2.84	134	13,200	2	No. 0 Alum	10	July 13, 1910	Jan. 2, 1911	
2	Junction Pole No. 134.	Beach Pump House.	6.34	323	"	2	0 "	10	July 13 "	Jan. 2 "	
3	" " No. 134.	Asylum "	1.13	67	"	1	2 "	10	Dec. 5 "	Feb. 8 "	
4	Berlin Sub. H.E.P.C.	Junction Pole No. 10.	1.17	10	"	2	0 "	10	Aug. 25 "	Sep. 11, 1910	
5	Junction Pole No. 10.	Waterloo "	1.64	79	"	2	0 "	10	Sep. 11 "	Nov. 25 "	
6	" " "	Berlin Cor. Station.	.38	35	"	2	0 "	10	Aug. 25 "	Sep. 11 "	
7	Berlin Sub. H.E.P.C.	New Hamburg "	2.27	556	"	2	2 "	10	Sep. 11 "	Jan. 2, 1911	Feb. 3, 1911
8	Woodstock "	Ingersoll "	9.87	453	"	2	0 "	10	Nov. 14 "	Mar. 28 "	
9	" " "	Junction Pole No. 508.	11.12	508	"	2	0 "	10	Jan. 2, 1911	Apr. 1, 29 "	
10	Junction Pole No. 508.	Tillsonburg "	10.30	467	"	2	0 "	10	Jan. 2 "	Apr. 1, 29 "	
11	" " "	Norwich "	4.59	207	"	1	2 "	10	Feb. 13 "	Mar. 30 "	
12	St. Thomas Sub. H.E.P.C.	Thomas Cor. Sta.	1.13	50	"	2	0 "	10	Dec. 14, 1910	Dec. 30, 1910	
13	Stratford "	" "	1.73	78	"	2	Copper	10	Built by Corporation		
14	Preston Sub. H.E.P.C.	Junction Pole No. 99.	2.04	99	6,600	3	2-4 Alum.	10	Oct. 8, 1910	Jan. 19, 1911	
15	Junction Pole No. 99.	Hesperia "	2.08	99	"	1	2 Alum.	10	Oct. 8 "	Dec. 30 "	
16	" " No. 99.	Galt "	3.75	175	"	2	4-0 "	10	Oct. 8 "	Jan. 19 "	
17	Preston Sub. H.E.P.C.	Preston Cor. Station.	.14	11	"	1	2 Copper	10	Built by Corporation.		
These poles also carry G.P. & H. Ry. Circuit Sec. No. 55.											
18	London Sub. H.E.P.C.	Junct. No. 1, Pole No. 38	.79	38	13,200	2	1-3 Alum.	10	Oct. 26, 1910	Jan. 10, 1911	
19	Junct. No. 1, Pole No. 38	Asylum "	1.54	70	"	1	2 Alum.	10	Oct. 26 "	Jan. 19 "	
20	" " " "	38 Junct. No. 2, Pole No. 93	1.20	55	"	1	3-0 "	10	Oct. 24 "	Jan. 21 "	
21	London Sub. H.E.P.C.	London Sub. No. 1	3.56	178	"	1	3-0 "	10	Oct. 20 "	Jan. 10 "	
22	Junct. No. 2, Pole No. 93	" " "	1.71	96	"	2	{ 3-0 "	10	Dec. 23 "	Jan. 10 "	
23	" " 2 "	93 "	.31	20	"	1	{ 1-0 "	10	Dec. 23 "	Jan. 10 "	
24	London Sub. No. 1	Springbank "	3.55	156	"	1	0 "	10	Jan. 1, 1911	Jan. 7 "	
25	Dundas Sub. H.E.P.C.	Dundas Town.	.98	58	2,200	1	(400,000 c.m. Alum)	Copper	Dec. 1, 1910	Jan. 1 "	
26	Pt. Credit Sub. H.E.P.C.	Pt. Credit, Lake Shore Rd.	2.74	129	13,200	2	No. 2 Alum.	10	Feb. 24, 1911	July 10, 1911	
26a	" " "	Lake Shore Rd. Pt. Credit Brick Wks.	.24	14	"	2	2 "	10	Apr. 5 "	July 23 "	
27	" " "	Sub. H.E.P.C. Brampton	11.29	510	"	2	2 "	10	Feb. 15 "	May 6 "	
28	Stratford "	" " Junct. Pole No. 648.	14.39	648	"	2	2 "	10	Apr. 6 "	Aug. 14 "	
29	Junct. Pole No. 648.	Line carried on Stratford City poles	12.86	from No. 581	2 to 24	incl.	erected by Corporation	Stratford.	Mar. 25, 1911	Sept. 13 "	
30	" " " "	No. 648, Mitchell	1.27	63	"	2	2 "	10	Mar. 24 "	Aug. 3 "	

31	Guelph Sub. H.E.P.C.	O. A. College	1.58	77	550 D.C.	1	0	10	July 21.	Sept. 29, 1911	.....
32	Guelph Sub. Sta. Prop.		.09	8	2,200 A.C.	1					
					13,200 A.C.	4					
34	Pt. Credit Sub. H.E.P.C.	Weston	18 Poles	on Stati	on Property in all.	3	No. 0 Alum.			Sept. 3, 1911	Sept. 4, 1911
		(Line	carried	on Sec.	27 poles	2					
35	Preston Sub. H.E.P.C.	G.P. & H. Ry.	.20	6	6,600	1	2	8	Aug. 7.	July 24,	.....
		(Line	carried	on Sec.	17 poles	from	0	No. 89—1.94	Apr. 19,	Mar. 21,	.....
36	Pt. Credit Junc't. No. 84.	Mimico (New Toronto)	5.75	276	13,200	1	2	10	Apr. 26,	Feb. 29, 1912	Mar. 21, '12
37	Midland S. Ry. & P.R. Co.	Pentang	4.50	223	22,000	1	2	8	June 7,	July 18, 1911	
38	Dundas Sub. H.E.P.C.	Dom. Sewer Pipe Wks	7.35	350	13,200	1	2	8	July 21,	Dec. 19,	Apr. 6, 1912
39	Hamilton Asylum P.H.	Hamilton Asylum	.63	30	2,200	2	4 Copper	10	Sept. 26,	Oct. 27,	Apr. 6, '12
40	Junc't. Pole No. 260.	Waterdown	1.50	72	13,200	1	2 Alum.	8	Sept. 30,	Oct. 10,	Apr. 6, '12
41	Dom. Sewer Pipe Wks. Junc't. Pole No. 260.		1.92	.....	.....	1	2	8	Sept. 30,	Oct. 7,	Mar. 1, '12
42	St. Thos. Sub. H.E.P.C.	Port Stanley	12.50	600	.....	1	2	8	Oct. 16,	Mar. 8, 1912	Mar. 9, '12
	Tap Sec. No. 8 Line at	Standard White Line									
	Beachville	Co.	1.00	2	2,200	1	2				
42a	Standard White Line	(Line carried on		8 poles	from Beachville		Pole No. 290		to Pole No.	240—1.00	miles.
	Kilm, Beachville										
43	Dundas Sub. H.E.P.C.	13,200 V. line supplying Tem		porary	Connection.	1	No. 2 Alum.		Dec. 6, 1911	Dec. 16, 1911	Dec. 21, '11
		Ingersoll from Wood		stock.	2,200	1	2		Dec. 1,	Dec. 19,	Dec. 21, '12
43a	Dundas Sub.	Jno. Bertram & Sons.	1.25	10	13,200	1	Sub. to pole	No. 58—98	Dec. 15,	Dec. 19,	Dec. 19, '11
		(Line carried		on Sec.	No. 25 poles	from	Nil.	8 cop.	clad steel.		
		A.W. Goodes residence	1.70	.....	Tel. line	only.					
45	Tap Ingersoll Feeder	Beachville Sub—Sta.	.09	3	13,200	1	0		June 1, 1912	June 29, 1912	July 17, '12
	at Beachville Munic										
	Sub-pole No. 240,										
	Sec't. L.T. 8.										
46	St. Mary's Sub.	St. Mary's Cement	2.22	80	.....	1	3.0	8	July 15,	Aug. 19,	Sept. 7, '12
		Works.									
47	Dundas Sub.	Caledonia	14.36	674	.....	1	3.0	8	May 10,	Sept. 18,	Sept. 20, '12
47a	Caledonia	Paris Abastine Mill	.22	Carried	2,200	1	2.0	Nil	Sept. 5,	Sept. 18,	Sept. 20, '12
				on 13,200			D.B.W.P.				
				Vt. Poles			Copper				
48	Caledonia Sub.	Jct. No. 1, Pole No. 940	5.87	267	13,200	1	No. 3.0	8	June 22,	Sept. 18,	Sept. 20, '12
49	Jct. No. 1, Pole No. 940	Hagersville	5.00	.....	.....	1	2	10			
50	Lythmore	Lythmore	4.98	230	.....	1	3.0	8	June 15,	Sept. 18,	Sept. 20, '12
51	Jct. No. 2 Pole	Jct. No. 2, Pole No.	1.25	60	.....	1	2.0	8			
52	Jct. No. 2 Pole	Oncida Line Co.	2.25	.....	.....						
53	Jct. No. 2 Pole	Cayuga	3.50	.....	.....						
54	Cayuga	Gypsum Mines	4.00	.....	.....						

Severn System

Under Construction October 31, 1912

Section 1 to 9, inclusive

Sec. No.	From	To	Miles	No. of Poles	Voltage	No. of Circuits	B. & S. Gauge Cable	Telephone B & S. Gauge	Construction Started	Construction Completed	Remarks
1	Wanbaushene Junction.	June. No. 1, Pole 176.	3.97	176	22,000	1	Alum. No. 40	No. 10	Sept. 21, 1912	.....	Under construction.
2	Junction No. 1, Pole 176	Coldwater	1.26	61	"	1	No. 2	10	" 23, 1912	.....	Poles erected.
3	Junction No. 1, Pole 176	Junction No. 2	15.82	712	"	1	No. 40	10	" 25, 1912	.....	Under construction.
4	Elmvale	Tap	.29	17	"	1	No. 2	10	.....	.....	"
5	Junction No. 2	Junction No. 3	4.50	207	"	1	No. 40	10	Sept. 25, 1912	.....	"
6	Junction No. 3	Barrie	11.94	556	"	1	No. 20	10	.....	.....	"
7	Junction No. 3	Junction 4	16.00	720	"	1	No. 30	10	.....	.....	"
8	Junction No. 4	Stayner	2.00	578	"	1	No. 30	No. 10	.....	.....	"
9	Junction No. 4	Collingwood	11.25								
			67.48								

St. Lawrence System

1	Morrisburg	Prescott	23.00	1,150	22,000	1	No. 30	10			
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Total Wire Miles, weight of Aluminum Cable, Copper Cable, Copper Wire, Copper Clad Steel Wire and Ground Cable used on lines completed or under construction.

Total Weights and Mileages of Cable and Wire

Cable or Wire	Wire Miles			Weight Pounds		
	To Oct. 31st, 1911	Oct. 31st, 1911 to Oct. 31st, 1912	Total	To Oct. 31st, 1911	Oct. 31st, 1911, to Oct. 31st, 1912	Total
Aluminum Cable	953.65	470.46	142.411	393.920	350.127	744.047
Copper Cable	7.84	.66	8.50	15.122	1.518	16.640
Copper Wire	3.27	9.00	12.27	2.517	4.799	7.316
Copper Clad Steel Wire....	360.15	323.48	683.63	63.000	64.615	127.615
$\frac{1}{4}$ in. Strand " "	184.03	158.89	342.92	134.084	138.240	272.324
Totals.....	1,508.94	962.49	2,471.43	608.643 304 tons	5,592.99 280 tons	11,679.42 584 tons

Progress of Work

In addition to constructing the lines just mentioned, material, labor and superintendence were supplied for the construction of the following distribution systems and extensions.

Baden Distribution System.

Mimico " "

Caledonia " "

Beachville " "

London System Extensions.

Pt. Stanley Distribution System.

Pt. Credit Distribution System and extension in Toronto Township.

Costs

The cost of construction of these pole lines varied owing to the employment of different sizes of conductors necessitated by the different power loads, as well as the different lengths of the various sections. These costs also varied with the distances which material for the line had been teamed, different classes of soil, swamp, sand, etc. Weather conditions for the construction work were also very bad during the season.

The total expenditure on low tension lines from Oct. 31, 1911, to Oct. 31, 1912, was \$158,269.44, making a total expenditure for the construction of low tension lines to Oct. 31, 1912 of \$193,037.99.

CHAPTER III

OPERATION OF THE SYSTEMS

NIAGARA SYSTEM

The operation of the Niagara System has improved considerably during the past year. The service of the Ontario Power Company has been excellent and although their supply was interrupted for a period of one and one-half minutes, and there were several surges, causing synchronous apparatus on the system to fall out of step, the Company has maintained a practically constant voltage, so that their service, on the whole, has been very satisfactory.

The majority of interruptions on the Niagara System were caused by wind storms, although lightning has been responsible for a few. Forty-two different electrical storms were reported during the summer of 1912. Seventeen of these were severe, and the balance either light or moderate. The first lightning storm of the season was observed on April 12th: the last on October 12th. During the seven months in which these storms were reported, there was an average of six days in each month on which storms occurred. Several of these storms were quite general in extent, although in certain parts of the system they occurred more frequently than in others, and were apparently the most severe in the vicinity of Port Credit and the extreme western part of the London Loop.

There have been two total high tension interruptions during the past year, as well as three western loop and one south half western loop interruptions which were caused by lightning. Section "B" of the high tension line supplying the City of Toronto seems to have suffered the least from this cause, the interruptions from lightning totalling $1\frac{1}{2}$ minutes for the whole year. Considering the frequency and the severity of the lightning storms which occurred last summer in the Niagara District and the interruptions on other high tension systems operating in the same vicinity, the system may be considered very fortunate in this respect.

The performance of the suspension insulators on the high tension line has been very satisfactory: only four have failed, two of these being punctured by lightning. Considering that there are one hundred and twenty thousand insulator sections in the system, this service is exceptional.

The post type insulators employed on the high tension lightning arrester towers at the stations have, on the other hand, caused considerable trouble. Several of them have failed, and to guard against a future recurrence of this performance, they are being replaced with an insulator of different design possessing more desirable electrical and mechanical characteristics.

The electrical and mechanical equipment of the high tension stations is in excellent condition and is operating very satisfactorily. This equipment, particularly the lightning arresters and oil switches, has been thoroughly inspected and overhauled by the station maintenance department, and in many cases the lightning arresters have been re-charged with new electrolyte. This equipment will hereafter be regularly inspected once a year to make sure that the interior elements are in good condition. The high tension oil switches were also disassembled, cleaned, and new contacts installed where necessary.

The entire high tension transmission line has been carefully inspected by the line maintenance gang, and the sags of the cable conductors and ground wires

in each of the various sections have been readjusted. At the time these readjustments were made a number of patent connectors in the ground wires, which had proved very unsatisfactory, were replaced by served and soldered joints.

Periodic and systematic patrol inspection of both the high and low tension lines has also been instituted; the routes for the various lines having been chosen with great care, these inspections are now being made at a minimum expense.

A specially designed outdoor type of 110,000 volt oil switch, which is connected in series with the high tension switches inside the building, has just been installed at the Niagara Station. The new switch consists primarily of resistances connected in multiple with the contacts of the switch proper which are so arranged that when the circuit is opened or closed they operate first, and close the control circuit, thereby operating the inside switch and accomplishing the switching operation in two steps. This arrangement protects the inside switch from the severe operating conditions which now exist at the station, and should greatly increase the life of the switch contacts.

An emergency bus is being installed in each of the high tension stations, by means of which a single operator, without help, should be able in case of breakdown, to disconnect a bad transformer and connect a spare in from 15 to 30 minutes.

The outside appearance of all the stations has been improved by grading and seeding the grounds and laying out flower beds and walks. In some cases, the roads leading to the stations; which were in bad condition, have been graded and gravelled.

The following municipalities have been supplied with power during the fiscal year. The table below, as well as the accompanying curves, show the increases in the power loads.

Municipality.	Load in H.P. in Oct., 1911.	Load in H.P. in Oct., 1912.	Increases in H.P.
Toronto	3,317.5	13,036.5	9,719.
London	1,608.5	2,681.	1,072.5
Guelph	898.	1,273.5	375.5
Stratford	502.7	643.5	140.8
Mitchell	167.7	221.	53.5
St. Thomas	469.2	643.5	174.3
Woodstock	804.3	837.5	33.2
Ingersoll	201.	496.	295.
Tillsonburg	127.3	194.5	67.2
Berlin	1,045.5	1,226.5	181.
Waterloo	241.3	402.	160.7
New Hamburg	107.	107.	.....
Preston	321.7	643.5	321.8
Galt	335.	643.5	308.5
Hespeler	201.	107.	.....
St. Mary's	241.3	261.	18.7
Dundas	53.6	127.5	73.9
Hamilton	1,307.	2,044.	737.
Hamilton Asylum	75.	87.	12.
Weston	80.4	100.5	20.4
Brampton	20.6	382.	361.4

A list of the municipalities connected to the Niagara System during the past year is given below. In order to provide for this supply approximately 70 miles of 13,200 volt line has been constructed.

Municipality	Date Connected	Initial Load H.P.	Present Load	Increase H.P.
Norwich	April 3, 1912...	60.5	67.	6.5
Seaforth	Dec. 1, 1911...	87.	174.	87.
Waterdown	Nov. 1, 1911...	6.	40.	34.
Ontario Agricultural College ...	Nov. 9, 1911...	120.6	114.	.....
London Asylum	Jan. 24, 1912...	40.6	67.	26.4
Port Stanley	March 9, 1912...	33.5	40.	6.5
Baden	Dec. 29, 1911...	13.5	13.5	.....
Mimico	Mar. 21, 1912...	13.5	50.	36.5
Beachville	June 25, 1912...	13.5	27.	13.5
Port Credit	July 5, 1912...	10.	24.	14.
Caledonia	Sept. 23, 1912...	13.5	13.5	.....

The accompanying curves illustrate the increases in the load of the systems from the beginning of operation to the present time.

It will be seen that for every month last year, with the exception of February, April and August, the load increased. The slight decreases in February and April may be attributed to the longer periods of daylight, and a consequent drop in the lighting load. For a similar reason, the August load includes the smallest consumption of power for lighting purposes. The other curves represent the load delivered from each of the high tension stations to the various municipalities. These curves indicate, even allowing for the natural decrease of the lighting load during the summer months, that the loads of all the municipalities are increasing in a very satisfactory manner, particularly that of the City of Toronto, which has more than doubled in the past year.

CHART SHOWING POWER CONSUMPTION OF MUNICIPALITIES

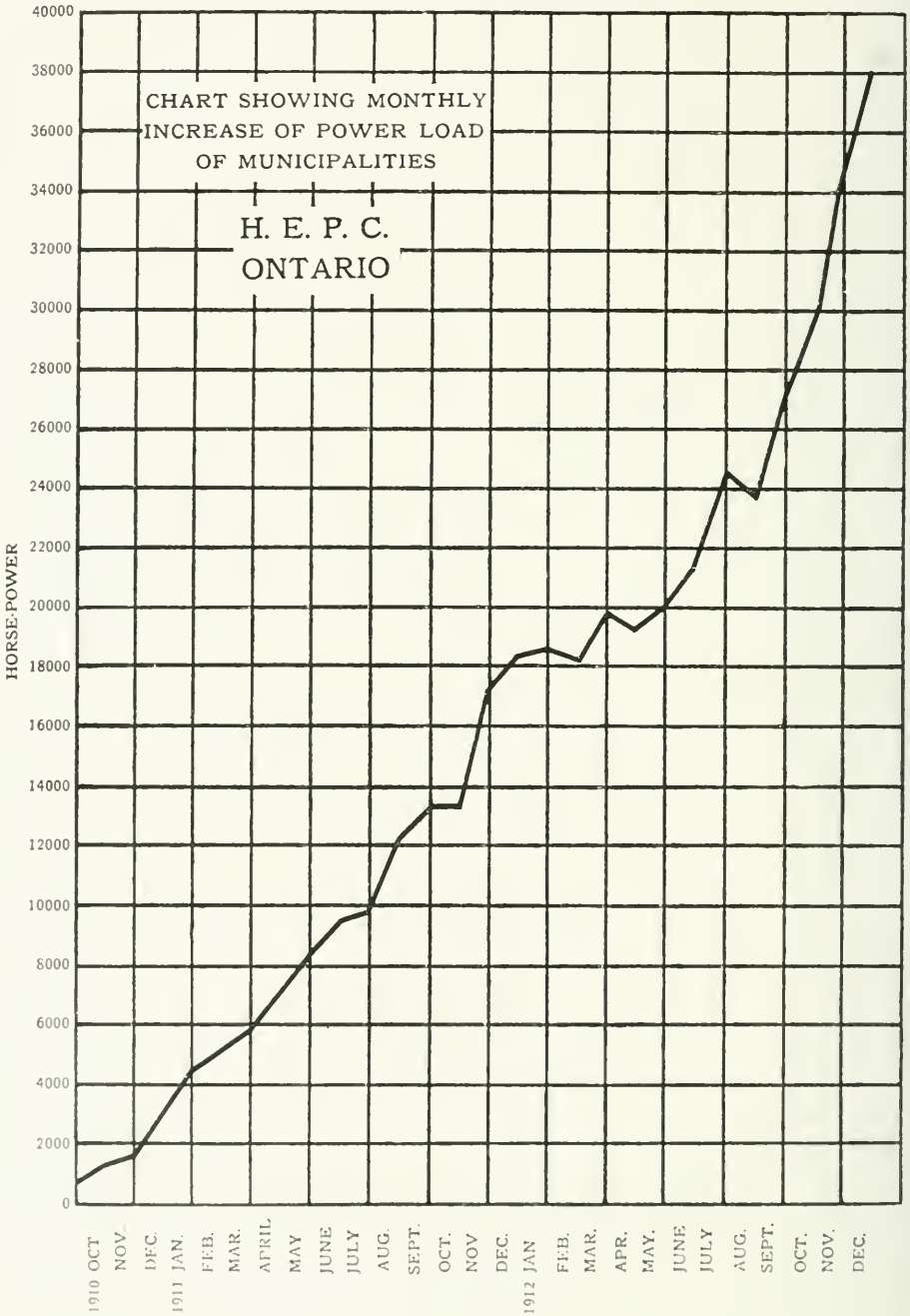


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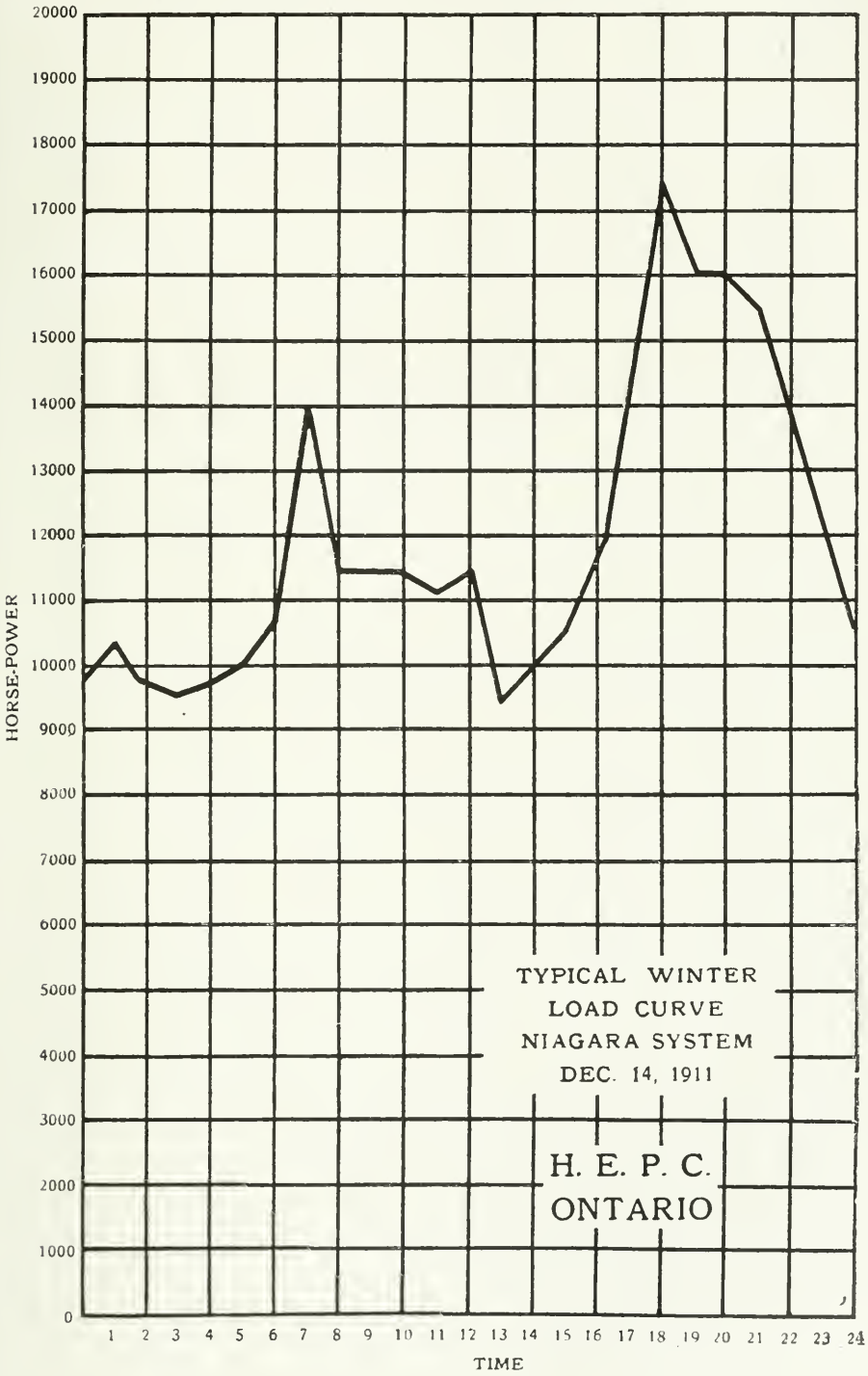


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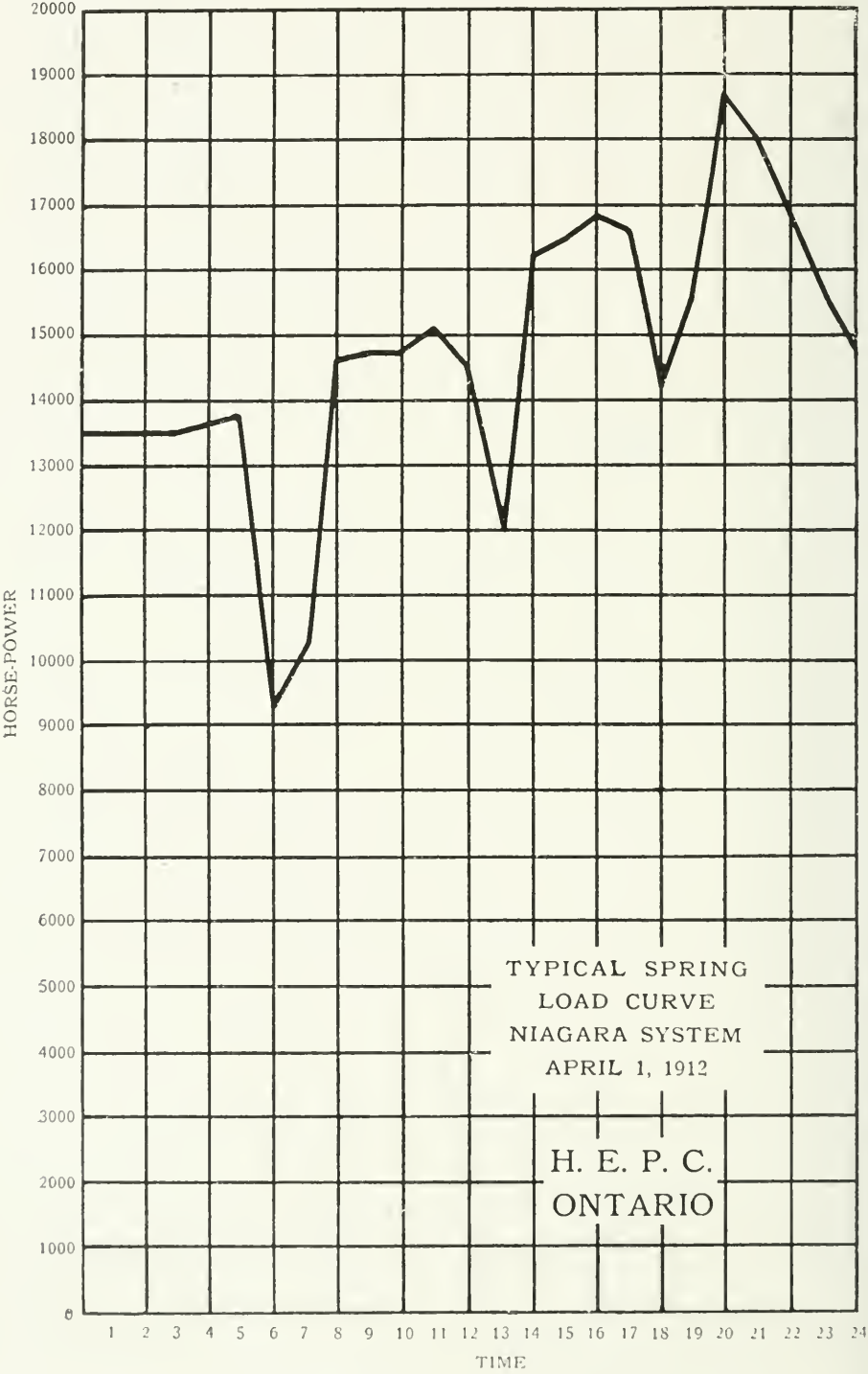


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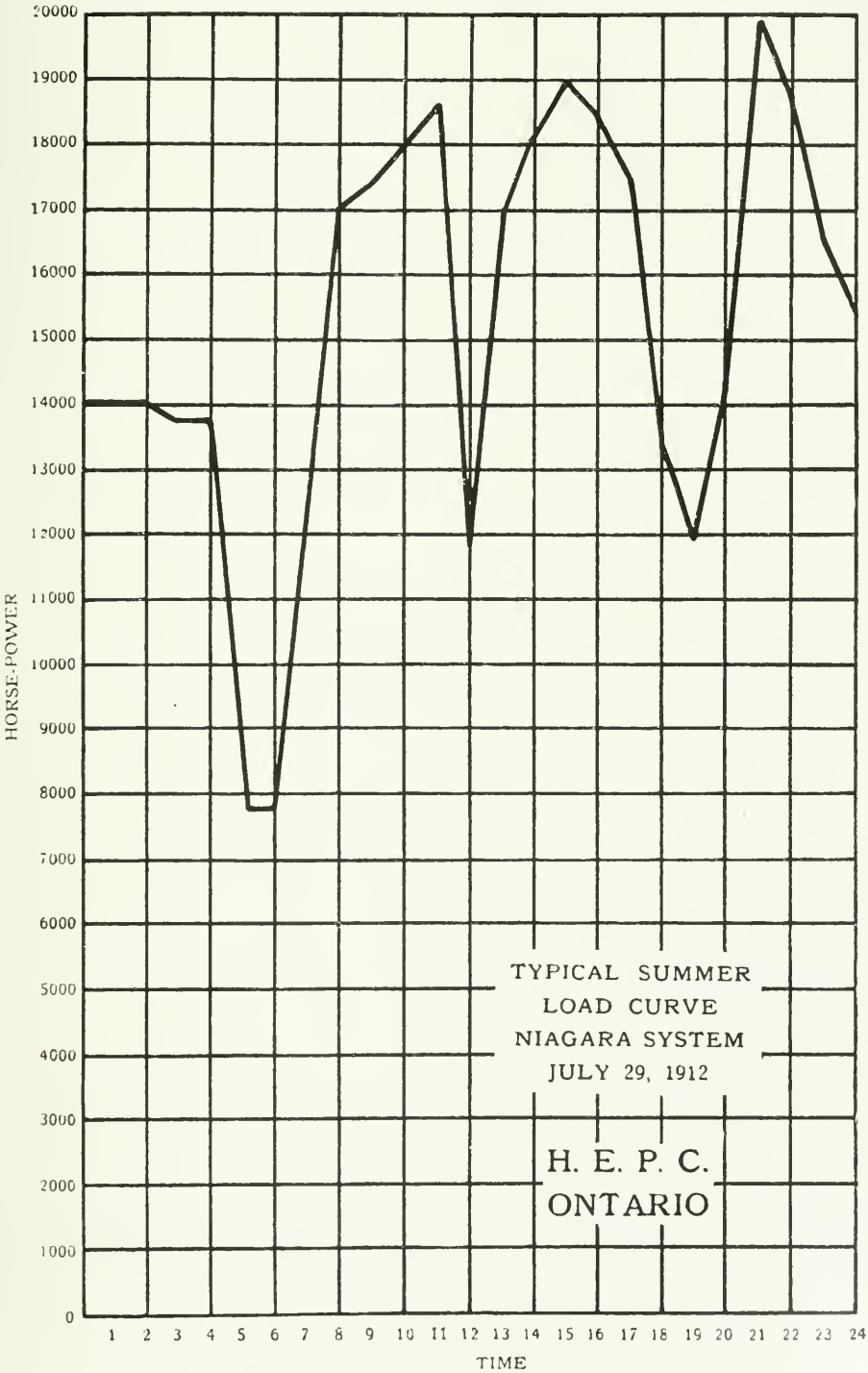


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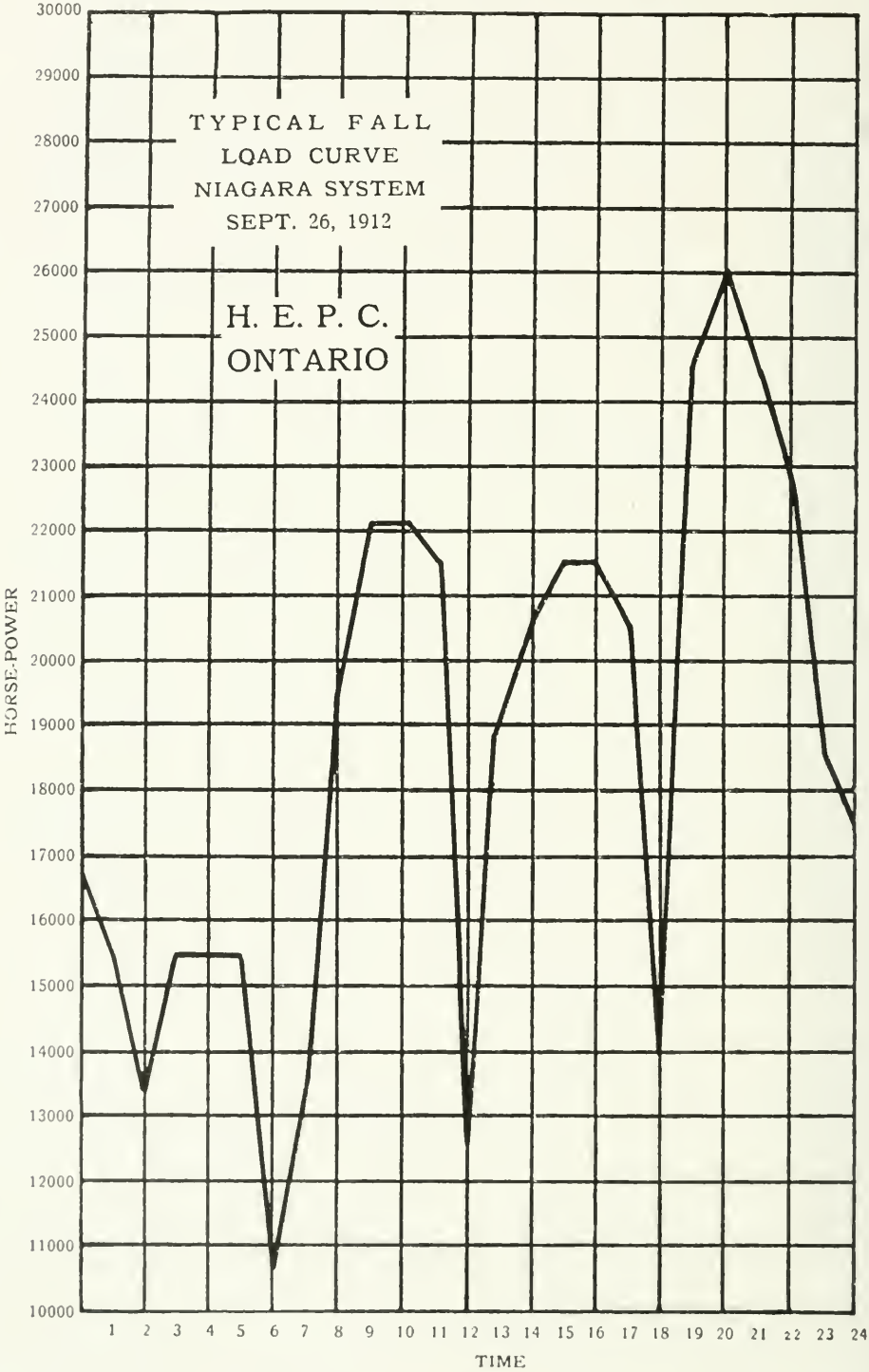


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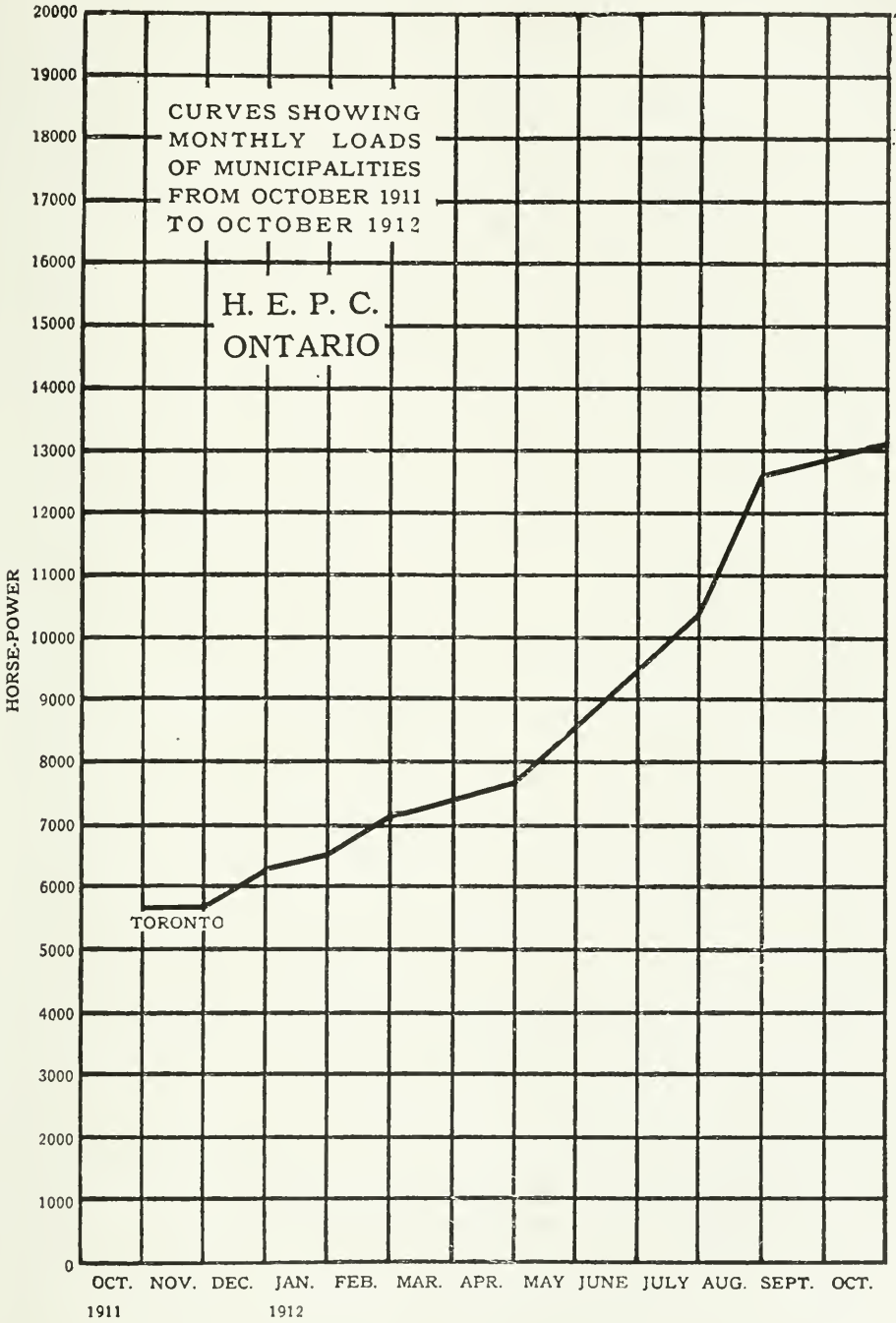


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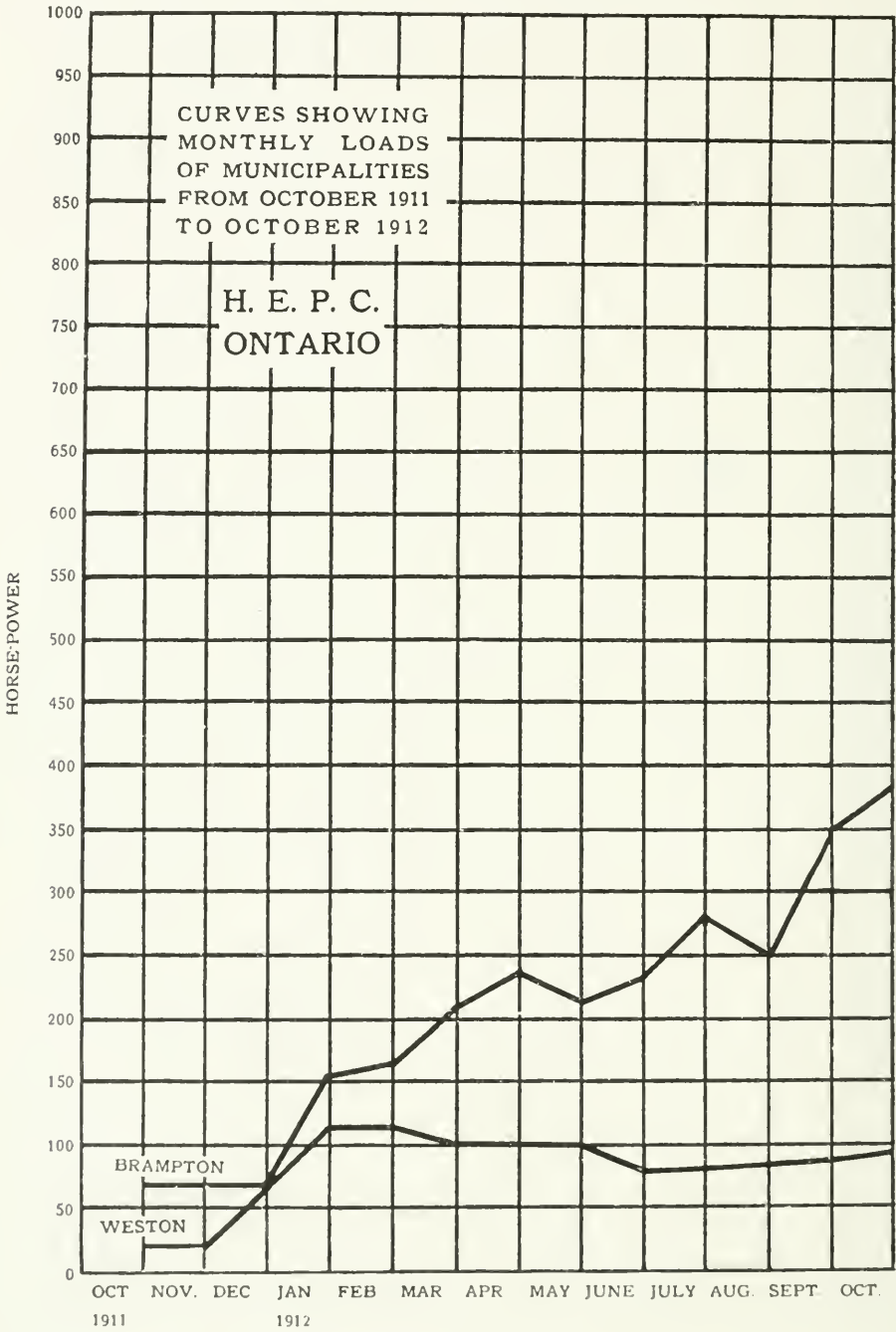


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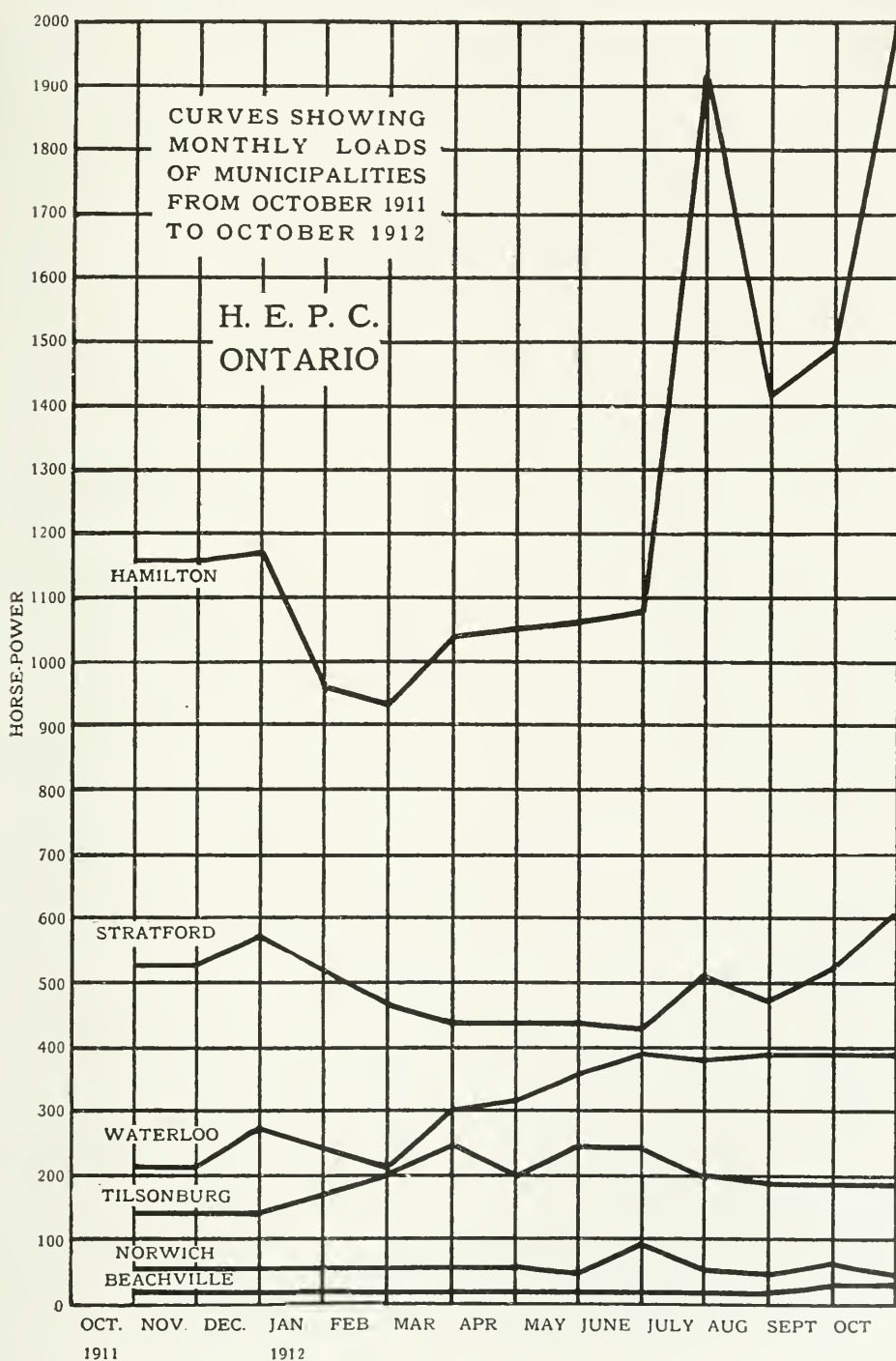


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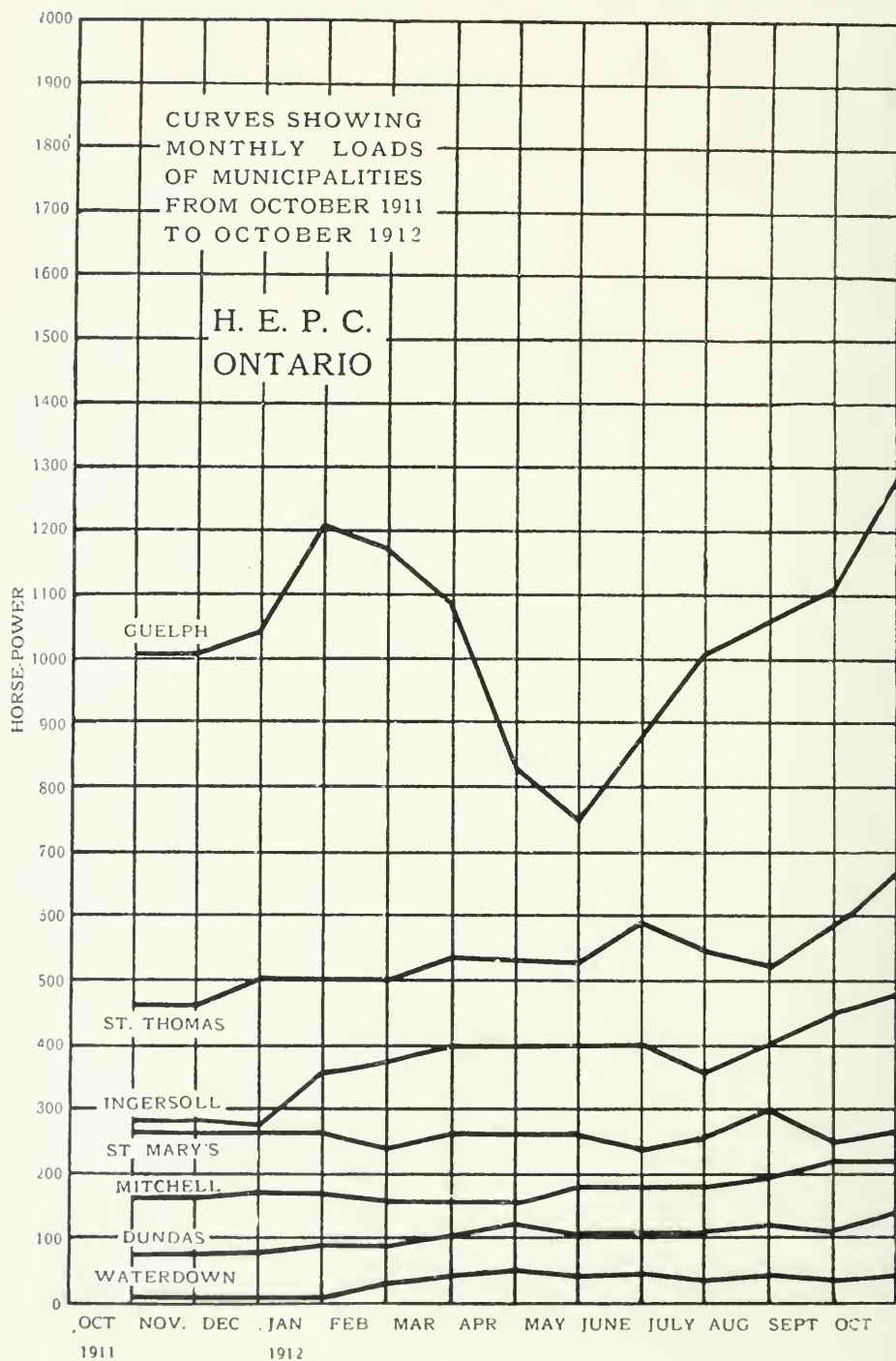


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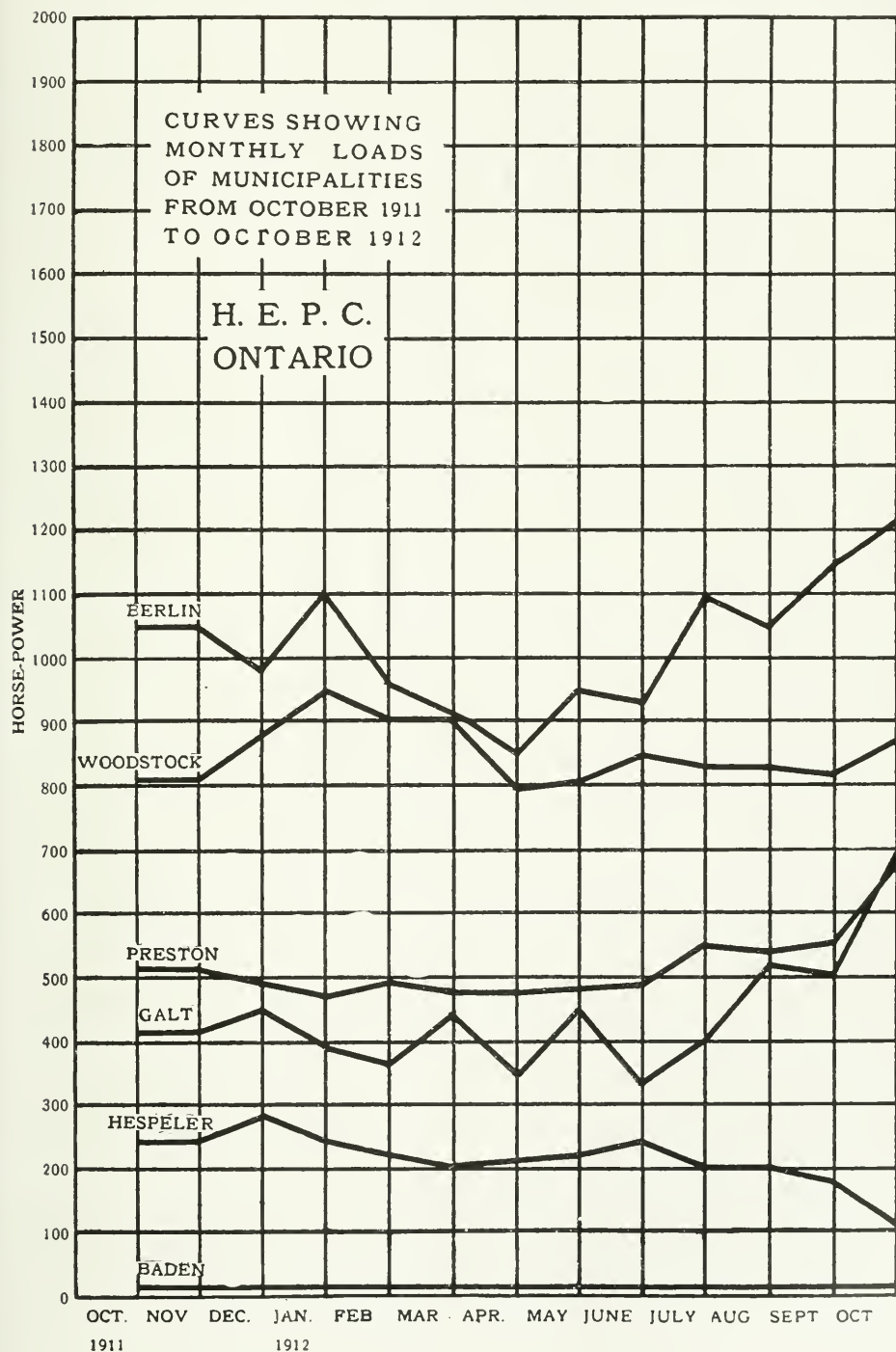


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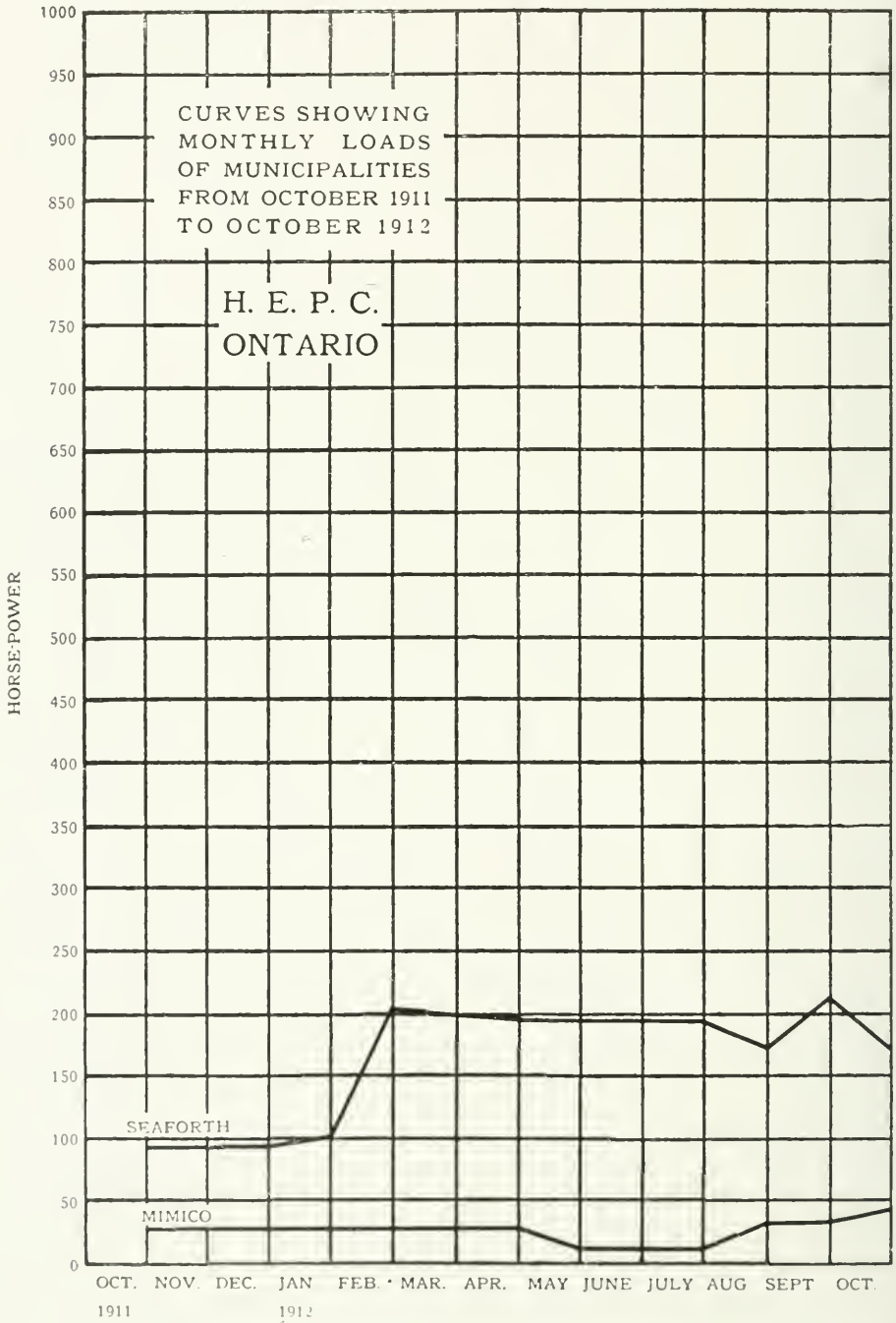
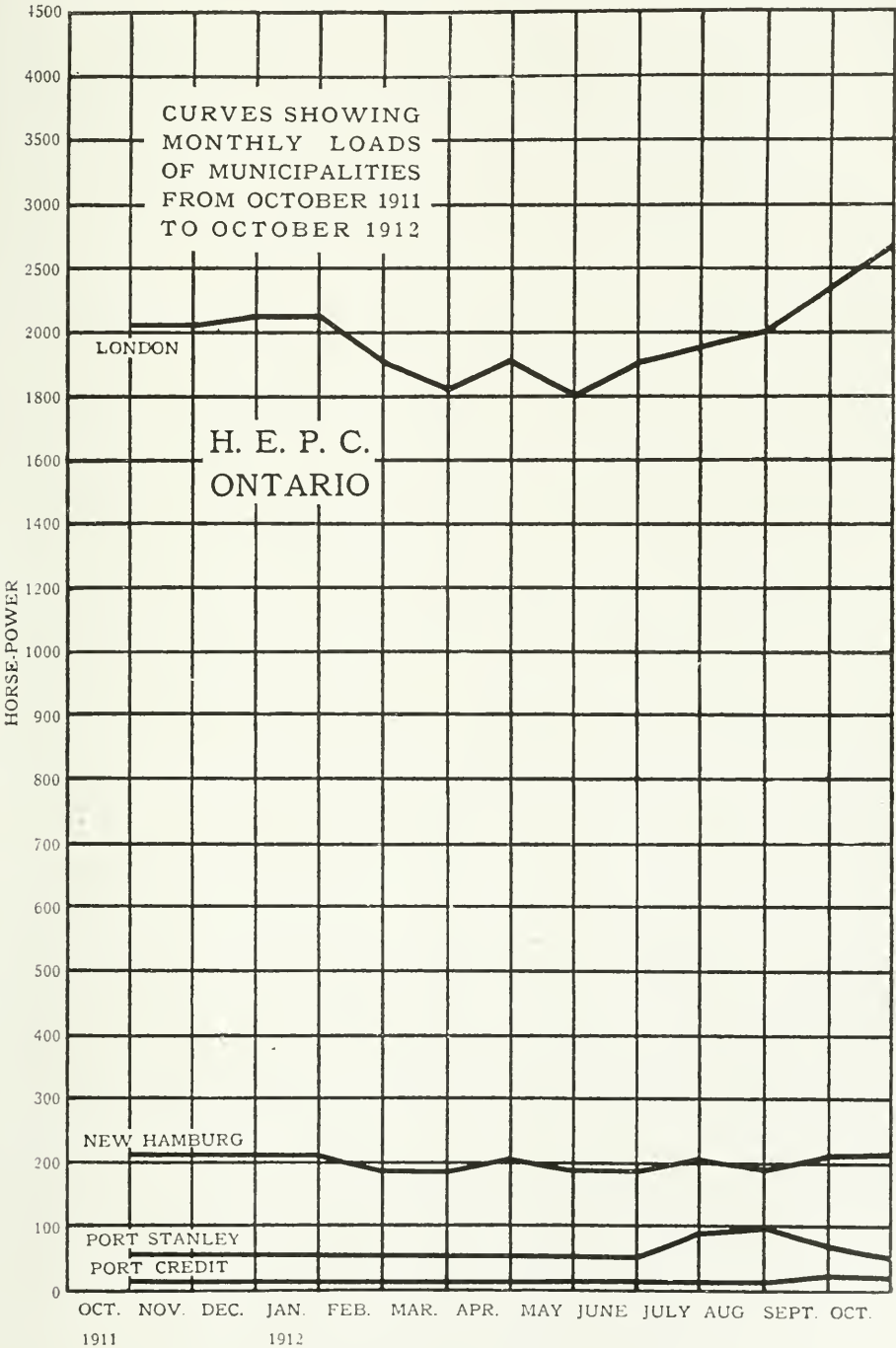


CHART SHOWING POWER CONSUMPTION OF MUNICIPALITIES



The capital investment for the Niagara system on October 31st, 1912, is as follows:—

Right of Way	\$ 542,088 85
Steel Tower Transmission Line.....	1,537,977 72
Telephone Line.....	129,668 95
Relay System Line	54,537 32
Niagara Conduit System	40,907 88
Wood Pole Lines	493,037 99
Transformer Stations.....	1,322,806 73
Distributing Station	37,803 80
Grand Total	\$4,158,820 24

The operating and maintenance expenses for the year have been kept well within the estimates and are as follows:—

Operators' salaries and expenses, including operating supplies.....	\$48,916 06
Maintenance of Transformer Stations	20,546 05
Maintenance of Transmission Lines	18,433 37
Administration and general office expenses	21,119 08
Total	\$109,014 56

A financial statement of Niagara System Operation for fiscal year ending October 31st, 1912, is given below:—

Disbursements			Receipts			
Power purchased, including losses of transmission and transformation administration, general expenses, operation, maintenance and interest			Power delivered including charges for administration, general expenses, operation, maintenance and interest			
			Surplus.			
	H. P.	Amount	H. P.	Amount	H. P.	Amount
1st quarter	53,397	\$101,505 49	53,149	\$108,920 08	—248.	\$7,414 59
2nd quarter.....	56,576	108,922 98	58,326.1	117,213 59	1,750.1	8,290 61
3rd quarter.....	58,641	116,693 83	64,306.5	127,986 38	5,665.5	11,292 55
4th quarter	78,825	129,513 13	80,723.8	157,681 83	1,898.8	28,168 70
	247,439	456,635 43	256,505.4	511,801 88	9,066.4	55,166 45

	H. P.	Amount.
Sum of monthly load and revenue	256,505.4	\$511,801 88
Sum of monthly power load purchased and costs	247,439	456,635 43

Net proceeds, \$55,166.45.

FIRST ANNUAL ADJUSTMENT OF CAPITAL EXPENDITURES, OPERATING EXPENSES AND FIXED CHARGES.
Niagara System. Fiscal year 1911-1912

Rate	Yearly average H.P.	Capital Cost	Interest	Operation, including administration and general ex- penses, and main- tenance	Cost of Power in- cluding losses.	Total expenses in- cluding losses in transmission and transformation, cost of power, general expenses, operation, main- tenance and interest	Receipts	Surplus for Depre- ciation Reserve	Shortage on In- terest Account	Net Surplus
		\$	\$	\$	\$	\$	\$	\$	\$	\$
Toronto.....	9100	862,686	33,396	22,068	81,940	137,404	168,982	31,578		.....
London.....	2100	544,325	21,016	10,878	18,969	50,803	61,009	10,206		.....
Guelph.....	1141	74,715	8,348	7,602	10,265	26,215	29,414	3,199		.....
Stratford.....	492	174,026	6,732	4,494	4,430	15,656	15,938	282		.....
Seaford.....	152	32,196	3,358	1,610	1,369	6,337	6,595	258		.....
Mitchell.....	184	84,789	3,185	1,843	1,657	6,685	7,053	368		.....
St. Thomas.....	590	286,827	10,807	7,357	5,314	23,478	19,336	.....	4,142	.....
Pt. Stanley.....	38	42,537	1,124	495	340	1,959	2,182	223		.....
Woodstock.....	833	170,865	6,587	4,536	7,499	18,622	21,869	3,247		.....
Ingersoll.....	392	104,709	4,038	2,667	3,528	10,233	12,475	2,242		.....
Tillsonburg.....	180	83,145	3,247	1,578	1,627	6,452	6,486	34		.....
Norwich.....	32	21,358	562	335	285	1,182	1,064	.....	118	.....
Beachville.....	6	7,099	106	36	55	197	194	.....	3	.....
Berlin.....	1012	211,268	8,192	6,818	9,112	24,122	25,289	1,167		.....
Waterloo.....	322	72,199	2,805	2,261	2,899	7,565	8,364	399		.....
New Hamburg.....	99	46,545	1,829	788	891	3,508	3,654	146		.....
Baden.....	36.95	7,939	111	53	63	227	274	47		.....
Preston.....	785.4	138,625	5,373	4,019	7,072	16,464	21,897	5,433		.....
Galt.....	658.3	134,015	5,208	3,482	5,929	14,619	19,397	4,778		.....
Hespeler.....	325.3	64,277	2,498	1,776	2,929	7,203	8,811	1,608		.....
St. Mary's.....	304	226,633	8,576	6,961	2,737	18,274	11,946	.....	6,328	.....
Dundas.....	121.6	17,100	535	641	1,093	2,269	2,302	33		.....
Hamilton.....	1534.7	223,724	7,231	9,304	13,818	30,353	29,775	.....	578	.....
Waterdown.....	37.50	12,133	362	204	313	879	1,221	342		.....
Pt. Credit.....	15	6,682	113	108	137	358	453	95		.....
Weston.....	273.5	83,259	3,217	2,219	2,461	7,897	7,781	.....	116	.....
Brampton.....	647	146,383	5,617	4,848	5,826	16,291	17,753	1,462		.....
Mimico.....	39.5	28,637	577	323	355	1,255	1,093	.....	162	.....
Caledonia.....	1.1	1,610	8	7	11	26	41	15		.....
Totals.....	21456	4,109,886	154,758	109,311	192,864	456,933	512,648	67,357	11,642	55,715

PORT ARTHUR SYSTEM

The Port Arthur System has been carefully inspected during the year and is in excellent condition. From the past and present indications the territory served by this line should very shortly become one of the most important markets for electric energy in the Province.

The exterior appearance of the sub-station has also been greatly improved since last fall, the grounds having been levelled and graded. The interior presents a somewhat crowded appearance, due principally to the installation of a new motor generator set and the necessary electrical equipment to provide for its operation. A few changes of minor character relative to this equipment were suggested and these are now being made by the company installing the apparatus.

The new Dominion Government Grain Elevator at Port Arthur will shortly be supplied from this station with power over an additional circuit erected on one of the two high tension lines already in use for a distance of $2\frac{1}{2}$ miles and a short pole line two miles in length to the elevator. This line will operate at a potential of 22,000 volts transforming at the receiving point to a potential of 550 volts to supply over 65 motors in the elevator, aggregating approximately 2250 h.p. The elevator, it might be mentioned, is situated in the centre of an industrial district, which, in the near future, should develop into a very attractive market.

The increases in the load of the Municipal system for the last year are not shown in the load records at the sub-station, as the plentiful water supply of last season enabled the Municipal Hydraulic Station on the Current River to generate sufficient power to meet this demand without necessitating the purchase of more than 1890 h.p. from Kaministiquia Power Co. This arrangement has provided a most economical method of operation. The average load factor of the system last year was 95%. When the proposed line to the grain elevator is built and additional customers connected, the demands on the sub-station should be at least twice those at the present time.

The capital investment for the Port Arthur System on October 31st, 1912, is as follows:—

Transmission Lines	\$15,801 29
Transformer Station	58,763 91
Interest during Construction	1,496 29

Grand total	\$76,061 49
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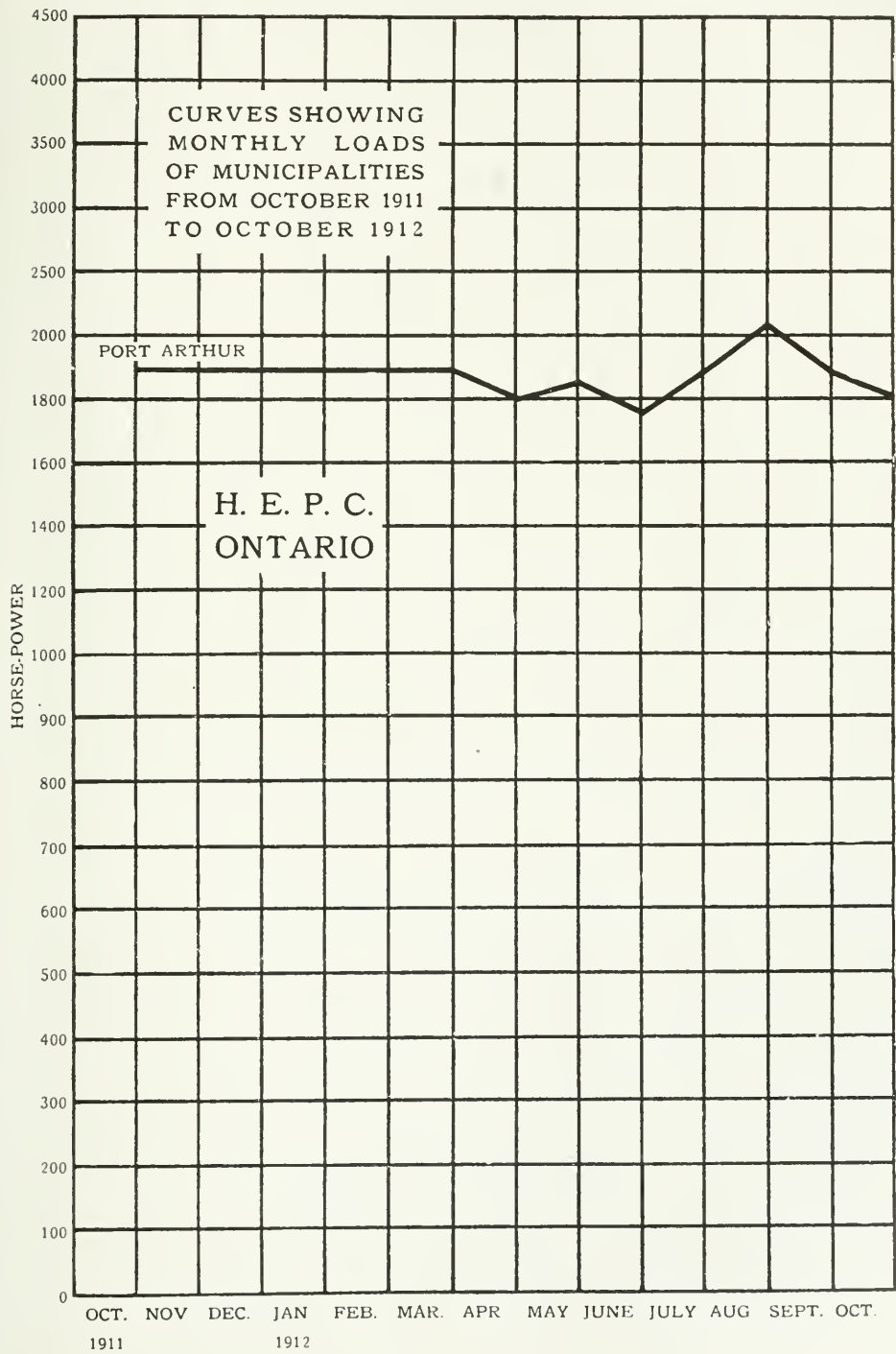
The operating and maintenance expenses from Dec. 15th, 1910, to October 31st, 1912, are as follows:—

Interest on Capital Cost during operation	\$4,707 15
Sinking Fund (1.8 per cent.)	2,118 20
Depreciation (4.5 per cent.)	5,295 64
Operation Costs	2,002 55
Cost of power—43,628 h.p.	57,125 23
	<u>\$71,248 77</u>

A financial statement of operation from Dec. 15th, 1910, to October 31st, 1912, is given below:—

Sum of monthly loads delivered and value, including charges for administration, general expense, operation, interest, sinking fund and depreciation— 43,628 h.p.	\$72,342 64
Sum of monthly loads purchased and value, including administration, general expense, operation, interest, sinking fund and depreciation—43,628 h.p.	71,248 77
Surplus	<u>\$1,093 87</u>

CHART SHOWING POWER CONSUMPTION OF PORT ARTHUR



SEVERN SYSTEM

The Severn System is at present being supplied with power from the Simcoe Railway and Power Company.

The Corporation of Midland is supplied with energy at 2,200 volts, 3 phase, 60 cycle, direct from the Midland station of the Power Company, metered at the latter point.

The operation of the Midland plant during the past year has been very satisfactory, the total connected power load, not including a 75 h.p. 600 gal. motor driven turbine pumping outfit installed in the pumping station, aggregating 200 h.p. Energy is also supplied for 216-100 watt series tungsten street lamps, 16-6.6 ampere series arc street lamps and 581 residential and commercial services. The lighting peak load has increased from 222 h.p. in October, 1911, to 335 h.p. in October, 1912, a total gain of 113 h.p. The power load has increased from 125 h.p. to 200 h.p. during the year. Negotiations are now under way to effect the annexation to the Corporation of Midland of a district known as "Dollar Town." The ratification of this agreement by the Ontario Railway and Municipal Board is all that is needed to close these proceedings. This annexation should increase the load of the Corporation of Midland for the coming year at least 100 h.p.

The Corporation of Penetanguishene is supplied with energy at 22,000 volts, 3-phase, 60 cycle, from a point on the line of the Simcoe Railway and Power Company near their Midland Station. A single circuit wood pole line 4.5 miles long erected along the streets of Midland and then directly across country to Penetanguishene supplies the Municipal plant with energy. This station is located adjacent to the pumping station of the Corporation in order to minimize operating costs. The installation of the electrical equipment was completed and current first delivered on the 27th of November, 1911; service was supplied on the first of December. During the month of January, 1912, a 600 gal. motor driven turbine pump was installed in the pumping station and the water supply of the town since then has been handled by this unit.

The load for the first month of operation was 134 h.p. and for the past year 240 h.p. The Corporation now has a total connected power load of 250 h.p. It is expected that before the close of next year this load will be augmented by the addition to the system of the power and lighting loads of two large industries, one of which is now erecting a factory, and the other of which plans very shortly to commence similar operations.

The capital investment for the Severn System on October 31st, 1912, is as follows:—

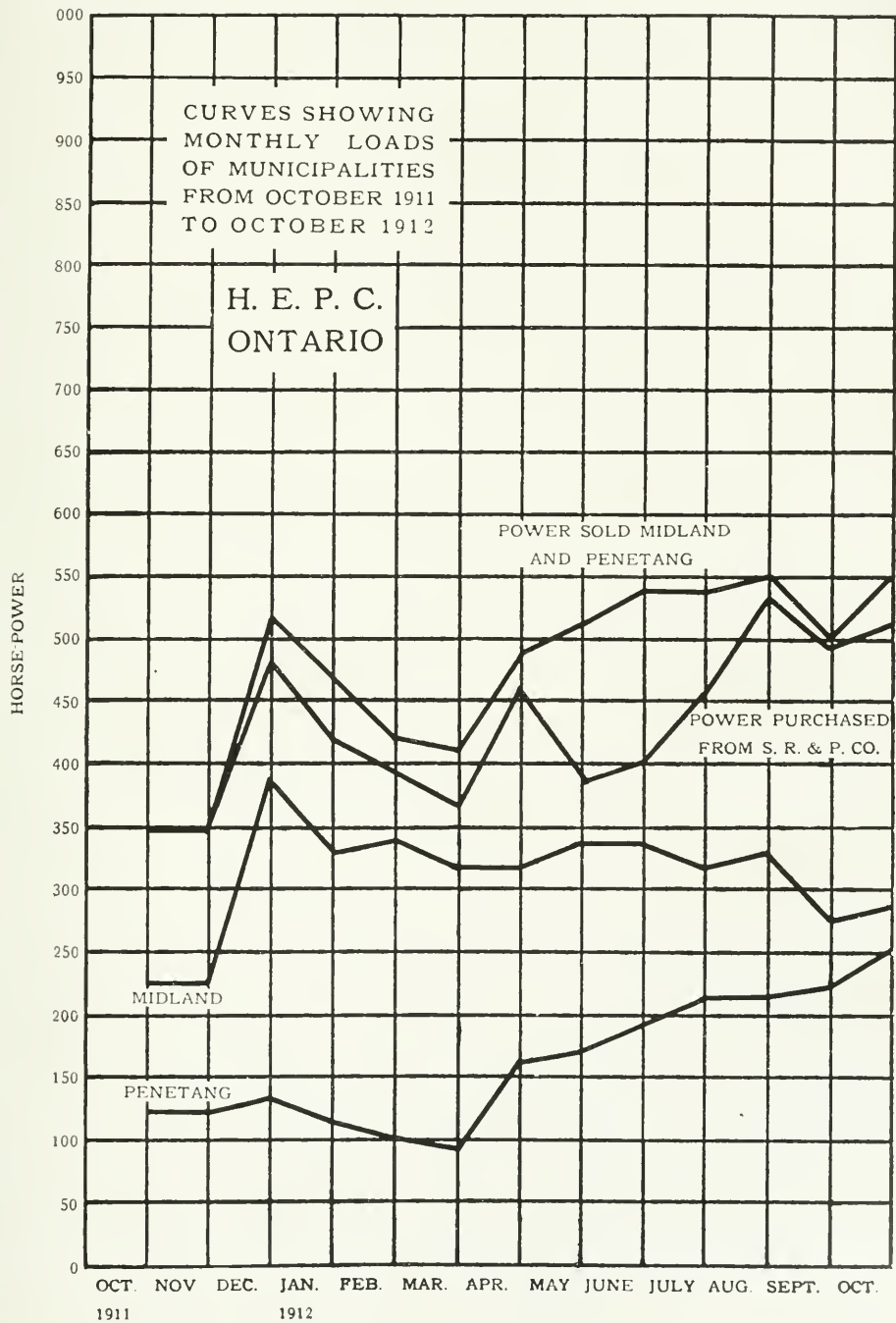
Midland Capital Cost.

Paid up.

Penetang Capital Cost.

Transmission Line	\$8,611 65	
Transformer Station	6,331 04	
Interest during Construction	70 06	
		\$15,012 75
Grand total		\$15,012 75

CHART SHOWING POWER CONSUMPTION OF MUNICIPALITIES



The maintenance and operating expenses from July 1st, 1911, to October 31st, 1912, are as follows:—

Cost of Power	\$3,527 94
Interest	698 77
Depreciation	600 96
Operation Costs	133 28
Total	\$4,960 96

A financial statement of operation from July 1st, 1911, to October 31st, 1912, is given below:—

	H.P.	Amount.
Sum of monthly loads delivered and value, including charges for administration, general expenses, depreciation and interest.	2,361.5	\$5,649 53
Sum of monthly loads purchased and value, including administration, general expenses, depreciation and interest.....	2,131.6	4,960 96
Surplus	229.9	\$688 57

TOTAL CAPITAL COST TO OCT. 31st, 1912.

Following is a statement of Expenditure on Capital Account including Niagara, Port Arthur, Severn, St. Lawrence and Renfrew Systems, also Municipal Construction (chargeable), Stock on hand, and Tools; together with Expenditures on behalf of Province and value of assets on same account.

Niagara System

Transmission Lines

Right-of-Way		\$542,088 35
Steel Tower Lines	\$1,537,977 72	
Telephone Lines	129,668 95	
Relay Lines	54,537 32	
Conduit and Cable System, Niagara Falls	40,907 88	
		1,763,091 87
Wood Pole Lines		493,037 99
		<u>\$2,798,218 71</u>

Transformer Stations

Stations in Operation	\$1,319,885 19	
Station Extensions	2,921 54	
		1,322,806 73
Distributing Stations		37,803 80
		<u>\$4,158,829 24</u>

Other Systems

Port Arthur Capital Cost

Transmission Line	\$15,801 29	
Transformer Station	58,763 91	
Interest during Construction	1,496 29	
		76,061 49

Penetang Capital Cost

Transmission Line	\$8,611 65	
Transformer Station	6,331 04	
Interest during Construction	70 06	
		15,012 75

St. Lawrence System

Distributing Stations	\$10 03	
Transmission Lines	6,614 27	
		6,624 30

Severn System

Distributing Station	\$1,104 50	
Transmission Line	28,407 01	
		29,511 51

Renfrew System

Hydraulic Construction		4,769 70
		<u>\$4,290,808 99</u>
Windsor Extension to Niagara System		2,126 61

Municipal Construction Chargeable

Various Municipalities	\$15,499 97	
Toronto Entrance	253,527 10	
		269,027 07

Stock and Tools

Line Construction and Maintenance Stock on hand		14,037 80
Line Construction, tools on hand		3,829 47

Total expenditures \$4,579,829 94

PROVINCIAL EXPENDITURES

Provincial Account for Fiscal Year, 1911=12

Engineering assistance to Municipalities, advising on construction of distribution systems, rates and accounting, statistics, including travelling expenses.	\$50,458 53	
Hydrographic surveys, reports on stream flow and power sites for the Province	16,678 24	
Standardizing of Municipal Station equipments and apparatus, including testing of lamps and meters..	3,910 86	
Preliminary surveys for projected construction.....	3,802 10	
Inspections and hearings of applications of Municipalities for overhead and underground systems	4,595 00	
Rules and regulations for the installation of systems for the utilization of electrical energy	9,654 66	
Practical demonstrations of the uses of electrical energy on the farm; also exhibitions on the farm and at Exhibitions, including expenses of Engineers	8,653 05	
Shop and development work on the improvement of apparatus; also testing equipment, instruments, etc..	8,619 99	
Illuminating engineering investigations	385 35	
Administration, Auditing and Secretary's staff	11,183 84	
	\$117,941 62	
Interest to October 31, 1912, on above expenditures and capital expenditures, as follows	5,810 37	
		123,751 99
 Capital Expenditures		
Equipment for Exhibition and farm demonstrations	\$12,404 95	
Shop tools and testing equipment	16,948 16	
Instruments, Hydraulic Department	999 90	
	\$30,353 01	
Storehouse	\$9,556 19	
Department of Public Works	6,331 54	
Municipal stationery and accounting forms ..	691 79	
	16,579 52	
		46,932 53
Total expenditures		
		\$170,684 52

CHAPTER IV

MUNICIPAL WORK

MUNICIPAL ADVICES

Municipal Department

The Municipal Department is employed to secure the necessary information for the preparation of estimates on the cost of supplying power to those districts desiring it through data collected by surveys of the districts and investigations of the possible power demands. These investigations are made, and estimates submitted at the request of the municipalities desiring power. After a contract for supply of power has been made between the municipality and the Commission, the latter acts as consulting engineer when so requested, and is expected to prepare engineering plans, specifications, call for tenders, and supervise the erection of the necessary material and apparatus. Later, after power is delivered, this Department aids the municipality in building up its power load by acting as a power solicitor, and advising the town and consumers regarding the amount of power necessary and the proper electrical equipment.

The standardization of apparatus, unification of rates and the inauguration of standard accounting systems are also under the direct supervision of the Municipal Department, which is expected to give advice on questions of an electrical nature at the request of any municipality in the province.

The work accomplished by this Department during the period covered by the report is given in detail in what follows; the municipalities being arranged in alphabetical order:—

Acton

On November 1st, 1911, a letter was received from Acton, stating that it had been decided by the Reeve and Council to submit the enabling by-law.

On February 19th, 1912, when submitted to the people, both the enabling and money by-laws were carried almost unanimously. In the meantime, investigations had been made and reports submitted on the condition of the Municipal plant and the possibility of obtaining a power load. Estimates were also made on the probable cost of rebuilding and extending the distribution lines for the supply of both light and power.

On April 30th, a contract was executed by the Corporation covering a supply of 200 h.p. at an estimated cost of \$36.00 per h.p. per year. Specifications were then prepared for the construction of a sub-station and for the sub-station apparatus. Details of the transmission line from Guelph and of the local lines were also gone over and the necessary material ordered for the construction of these lines.

Construction on the transmission line was commenced in August and on the sub-station building the following month. Material for the construction of the low tension lines has arrived and preparations are under way for commencing this portion of the work.

Ailsa Craig

During the latter part of 1911 a letter was received from the Mayor of Ailsa Craig, who wrote, at the request of a number of the residents, requesting information.

The village was visited and the power question fully discussed, with the result that an enabling by-law was presented and passed by a large majority at the January elections 1912.

An estimate for the supply of 100 h. p. to Ailsa Craig, in conjunction with other places in that district, was made and is now being revised.

Ancaster Township

At various times during the year requests have been received from residents of the township, asking for estimates of the cost of power delivered in small quantities and also asking for instructions as to the procedure which should be followed to arrange for service. Copies of the "Act to Provide for the Local Distribution of Electric Power of 1911", together with petition forms were sent in answer to such requests, with explanatory letters. During the fall, some of these petitions were received from the township council, with requests that estimates be furnished. These had to be returned to the township for further information as to the amounts of power desired and the location of some of the applicants.

Similar requests were received from the adjacent townships and as there are a number of radiating low tension and relay pole lines through that district, it was decided that power could be furnished cheapest to all concerned by laying out a system of distribution covering all the applications received, rather than treating each one separately. Consequently, letters were sent out asking each township to bring their petitions up to date so that united action might be taken.

The district surrounding West Hamilton Post Office has grown steadily during the last two years and there have been continued requests for power for domestic use. Recently this was augmented by a Hydro customer operating a planing mill in Dundas, who has erected a mill in West Hamilton. When petition forms were circulated, following some public meetings, some 140 residents signified their desire for power. With this number supplied in the district, the matter of lighting the streets becomes very inexpensive and will soon be taken up.

The matter of a supply was taken up with Dundas town and an engineer visited the district a number of times to gather data. From the information thus obtained a rough estimate was made of the cost of a system. The estimate amounted to, approximately, \$8,000.00, and included a 2,200 volt, three-phase line from Dundas Station to West Hamilton and construction complete, in the district, to supply 125 customers. The Town of Dundas is making a canvass of the district and expects to be able to request that the line be built at once. If this is done, the money will be advanced to erect all the construction and Dundas will be charged the interest and sinking fund on money so expended. The cost of power to customers in West Hamilton will be practically the same as in Dundas.

Ancaster Village

In the early winter the Trustees of the Police Village of Ancaster asked for a supply of power. Information was sent, stating how Police Villages are supplied, and on receipt of the data from the Village, the matter was referred to the Estimating Department to lay out a scheme for supplying the load with an estimate of the cost of power so delivered. This information will be sent out shortly.

Appleby

See Report on Nelson Township.

Atwood

On March 7th, 1912, a representative visited Atwood and obtained information in regard to the probable demand for power in that locality. It was found that about 400 h.p. could be utilized in this district and estimates of the cost of transmitting this power have been prepared, and are now being revised to agree with reduced costs on the Niagara System.

Aurora

See Report on Newmarket District.

Ayr

On November 20th, 1911, a letter was received from the Village of Ayr, asking for information. A reply, dated November 28th, 1911, gave them all the procedure necessary to bring the matter up and on January 25th a resolution was forwarded requesting that the question of Hydro-Electric Power for the Village of Ayr be considered.

Detailed information was obtained regarding the local plant, and the power requirements of the Village, and on May 16th a letter was directed to the Reeve, giving the estimated costs in conjunction with the demands of Wolverton, Drumbo, Innerkip and Plattsville.

Baden

At the request of the Trustees of the Village of Baden estimates were prepared during the current year on the cost of power and also on a local distribution system. Construction work was carried out under supervision and current was turned on in Baden by the Chairman on December 29th, 1911. This Village now enjoys a well balanced system of street lighting. Distribution lines make power and light available at any point within the Village.

Barrie

On November 14th, 1911, Mr. Donald Ross, Chairman of the Barrie Board of Trade, first communicated with the Chairman relative to securing power for Barrie from the Simcoe Railway and Power Co. at the Big Chute on the Severn River, with the ultimate result that the Town Council passed a resolution on December 5th, requesting an estimate on the cost of delivering 750 h.p. to Barrie.

Various routes for the transmission line at divers voltages were investigated, and after careful consideration it was estimated that 700 h.p. could be delivered to the town at a cost of \$31.97 per h.p. year, being transmitted from Waubaushene at 22,000 volts, and delivered at 2200 volts, using the present power house building for housing the step-down apparatus. It was also estimated that it would be necessary for the town to expend \$7,000.00 on the present distribution system, in stringing new feeders for power circuits, and to provide for additional station apparatus.

On June 3rd, 1912, the ratepayers of Barrie voted on two by-laws, one to enter into a contract for 700 h.p., and the other to raise \$7,000.00, both of which were carried almost unanimously.

Construction work on the transmission line was started during the latter part of September, 1911, and a contract was let to the Canadian General Electric Company for the station equipment. The pumping station apparatus was examined and detailed plans and specifications for motor driven turbine pumps were prepared.

Power is expected to be turned on in Barrie shortly after the first of March, 1913.

Bayfield

The probable demand for power in Bayfield has been considered in conjunction with the other municipalities in Huron County.

Beachville

Early in November, 1911, the Trustees were advised of the possible sites for a sub-station, and requested that they arrange to secure one of them. Plans and specifications having been prepared, they were forwarded to the Trustees; it was decided later to supply 2200 volt power to villages, so the station was built by the Commission.

After notifying the Trustees a temporary arrangement was made, whereby the Standard White Lime Co. was supplied with 2200 volt power from Woodstock Station, using one of the Woodstock-Ingersoll lines.

The contract was signed and received the last week in January.

By request from the Village Trustees supplies were purchased and men furnished to build the distributing system and arrangements were made with the Independent Telephone Co. of Ingersoll and the G.N.W. Telegraph Co. for joint use of poles.

The station having been completed, the Trustees requested an official opening, a demonstration, and that Mr. Beck be present to push the button to turn on electricity for use in Beachville.

Their request was granted and arrangements were made with various manufacturers for the loan of different types of motors, heating apparatus, etc.

Mr. Beck, accompanied by Mr. Pocock Chairman of the London Commission, opened the demonstration. As an example of the uses to which electricity may be put a cow was milked by means of an electrically operated milker, the cream was then extracted in a separator driven by an electric motor, and coffee was made in an electrically heated percolator.

From the time the milking was finished to the serving of the coffee only about 3 minutes was required by the other operations.

Mr. Beck, during an address, then turned on the current and the Village streets were brilliantly lighted by the lamps installed permanently for that purpose, as well as by a great number of colored lamps that had been strung up for the occasion.

The demonstration consisted of showing the uses of all manner of devices for general service both in the home and on the farm, viz.: toasters, flat irons, coffee percolators, tea samovars, chafing dishes, water heaters, table grills, curling iron heaters, cigar lighters, soldering irons, radiators, vacuum cleaners, a standard range, a fireless cooker, a washing machine, and farm implements of different kinds, such as a buzz saw, turnip pulper, etc. driven by motor.

Another Lime Co. has started operation and although the quarries are in the townships of North and West Oxford, outside the Village limits, the contract has been transferred to the Village: the line is now being built and service will be connected at an early date.

The results have been very satisfactory in every way.

Beamsville

On November 13th, 1911, at the request of the Village Clerk, blank application forms and other information were sent to the Village of Beamsville. An enabling by-law was submitted to the ratepayers on January 1st, and carried.

A thorough and complete engineering study was started of Beamsville, together with all the territory from Hamilton to St. Catharines and south to Dunnville, in order to evolve the most advisable and economical system of supply for this territory. Various estimates have been made, but no definite plan has been submitted to the interested municipalities.

Beaverton

See Report on Ontario County.

Berlin

Improvements to the street lighting system have been made during the current year, ornamental single light standards having been installed on several residence streets. The series tungsten lighting is replacing the old direct current arc lighting system in use on the main street. The street lighting in Berlin is now in better condition than ever before, a more even distribution being particularly noticeable. The house lighting load is steadily increasing, as well as the power demand.

Estimates have been prepared for supplying a large block of power to a new factory now being built in Berlin. Additional station capacity is contemplated for this service. As a whole, the year's operation has been successful and general satisfaction is expressed with the results obtained.

Maximum load October, 1911—1045 h.p.

Maximum load October, 1912—1206.5 h.p.

Further increase is assured for the coming year.

Beverley Township

A petition was received from the Council, asking for estimates to supply a number of prospective customers. This is being considered with applications from the adjoining townships.

Blanshard

On March 1st, the Clerk of the Township of Blanshard asked for information in regard to the supplying of light and power to the Village of Kirkton from St. Mary's.

The information desired was forwarded and later a survey was made of the Township, with the object of laying out a proposed distribution system as a basis for an estimate.

Blyth

A by-law was submitted to the ratepayers of Blyth at the Municipal Election in January, and carried by a substantial majority.

On January 30th, 1912, a letter was written to the Clerk, urging co-operation, and asking what action the Council intended to take.

Bradford

See Report on Newmarket District.

Brampton

Previous reports on this town have dealt with preliminary matters pertaining to a supply of power and closed with plant construction. An engineer visited the town regularly to assist them in the details of the system and to keep check on the installation of the sub-station equipment. Prospective power users were also seen and a number of contracts signed on behalf of the town.

The class of construction used in the town is an example that any city might follow, and by using the high British Columbia Cedar poles the construction has not marred the beauty of the streets nor ruined the shade trees as was predicted. The system of street lighting is considered one of the best in the Province.

Most of the factories in and around the town are using electric power and some new manufactories have also signed their contracts for a supply. During October of the present year the Town of Brampton took 373.5 h.p. and the present indications are that there will be a great increase over this amount during the coming year.

Brantford

On December 6th, 1911, a copy of the by-law was forwarded to the City Clerk of Brantford with full instructions as to the manner in which they should apply for a supply of power. Estimates of the cost of installing distribution systems in the City of Brantford to utilize Hydro-Electric power were prepared and submitted to the Council for consideration.

In the summer it was decided to submit enabling and money by-laws to the people for a supply of power and the construction of a distribution system. A very active campaign was waged against the by-laws, but they were carried, on October 25th, by a very satisfactory majority. Instructions were at once issued to draw up a contract to be submitted to the Council early in November.

Brechin

See Report on Ontario County.

Brockville

On November 30th, 1911, a letter was written to the Clerk at Brockville, giving the estimated cost of power for the municipalities in that district. A copy of the short form of by-law was also forwarded with all the necessary information in connection with same.

It was decided that this by-law should not be submitted at the Municipal Elections at the first of the year, and the vote on the by-law was, therefore, deferred until April 25th, when it was carried by a large majority. A contract for 1,000 h.p. at \$24.04 per h.p. per year was drawn up at once and sent to Brockville, with the request that it be executed and returned at once. There was some delay before it was signed, but it was finally signed by the Mayor and returned on July 30th.

Bronte

A letter was received from the Secretary of the Police Trustees, asking for information on the cost of power, and in response to it, an investigation was made of the district.

It was reported that there was a possible load of 50 or 60 h.p. in the Village and that the supply line could be built to the Village through a district in which there was a considerable demand for rural power. An estimate was made up for the supply of power to the Village, and sent to the Trustees, giving a cost of \$42.00 per h.p. per year on 50 h.p., delivered to the Village at a voltage suitable for local distribution.

The Trustees were visited a number of times and information was furnished them as to by-laws that were necessary to enable them to install a system. Public meetings were held to discuss the matter, resulting in the Trustees making application to the Township Council to present enabling and money by-laws before the people at the annual election.

Bruce County

During the week of November 20th, 1911, the various towns and villages in Bruce County were visited, with the idea of bringing the power by-law before the various Mayors and Reeves, and suggestions were made that this by-law be submitted to the ratepayers at the Municipal Elections in January.

The Mayor or Reeve of the following towns and villages, which were visited, promised, in each case, to bring the matter before the Council for consideration:—

Lucknow, Kincardine, Teeswater, Mildmay, Walkerton, Paisley, Port Elgin, Southampton and Chesley.

On December 21st, 1911, a resolution was received from the County Clerk of the County of Bruce, asking for an estimated price on electrical energy from the Saugeen River. This letter was acknowledged with the information that this matter would be taken up at the first opportunity.

On January 30th, letters were written to all the various towns and villages which passed the enabling by-law urging co-operation and asking what action they intended to take.

During the week ending February 24th, all the above mentioned municipalities were visited, in order to ascertain their local power conditions and from the data obtained a complete report was made.

Brucefield

The enabling by-law was submitted to the ratepayers of Brucefield at the Municipal Elections in January, and carried, and a letter was written to the Village Clerk, urging co-operation with the other towns in the district.

Brussels

The enabling by-law was submitted to the ratepayers at the January Municipal Elections and carried. A letter was written to the Clerk, urging co-operation and asking what action the Council intended to take.

Bullock's Corners

See Report on West Flamboro.

Burford

In compliance with a request from the Village of Burford a representative visited that place and made a report on the local power conditions.

Estimates of the cost of delivering power to Burford were made and forwarded to the Clerk on June 14th. Further estimates were made in September on the assumption that certain blocks of power be taken into Burford, Simcoe and Waterford, all three municipalities co-operating.

Caistor Centre

A letter, dated November 13th, 1911, was received from Caistor Centre, asking for information in connection with electrical power for use on farms.

Caledonia

In order that the Village Council might be in a position to sign a contract for a supply of power at any time desired, and also to determine the feeling of the ratepayers on the matter, an enabling by-law was placed before the people at the annual elections in January, 1912. The by-law was passed by a large majority.

A money by-law for \$4,600.00 covering the construction of a municipal system, was prepared and placed before the people. It was carried by a large vote, and then a contract for 25 h.p. at \$29.10 per h.p. per year was signed by the Village. A resolution of the Council was received, with the request that the material be purchased and the construction erected. The material has been ordered and the Construction Department are now erecting the system according to approved plans. Some twelve or fifteen buildings have been wired and are waiting for a supply of power. The Municipality is being assisted in working up a motor load.

The Village authorities have asked for some extensions and some extra street lights. This work and also the construction to the Laurentia Milk Company will increase the cost of the system over the \$4,600.00 estimated upon, and additional money will be raised as soon as the exact amount is known. Power was delivered in September.

Campbellford

The Town of Campbellford, which operates a municipally owned electrical generating and distribution plant, forwarded a resolution, requesting that hydraulic and electrical engineers be sent there to report on their local conditions.

Acting on this request, the Town was visited and from the data obtained a complete report was made on their electrical situation, which report was forwarded to the Town, together with recommendations covering changes needed in their equipment to make it meet their requirements.

(See also Hydraulic Report.)

Cannington

See Report on Ontario County.

Cayuga

Last year a canvass was made of the district between Hamilton and Lake Erie and reports were submitted on the load obtainable near Cayuga.

Many of the Councillors were seen and information was furnished them as to the procedure to be followed to enable them to secure power.

An enabling by-law was placed before the people at the annual election this was passed by a large majority and allows the Village council to enter into a contract for power.

Centralia

The enabling by-law was submitted to the ratepayers of Centralia on January 13th and carried.

On January 30th a letter was written to the Clerk of the Village, urging co-operation and asking what action the Council intended to take.

Chatham

During November and December, 1911, a number of estimates were prepared of the probable demand for power in Chatham in connection with the Windsor extension estimates.

A letter was received from the City Engineer of Chatham, asking advice in connection with proposed extensions of their street lighting system. The desired information was forwarded as well as a sample street lighting bracket and lamp.

During the summer quantities of material were purchased on behalf of the Corporation.

On June 4th, a tabulation, showing the charges for street lighting in various municipalities, was forwarded to the City Engineer.

Chesley

On November 24th, 1911, a letter was received from the Village of Chesley, asking information in regard to Hydro-Electric power, and also assistance in local matters, all of which was duly submitted.

An enabling by-law was submitted to the ratepayers at the January municipal elections and carried by a large majority, and on January 30th, a letter was written to the Town Clerk, urging co-operation with the other towns in the district.

Chesterville

In October, the Council wrote requesting information *re* Hydro-Electric power.

Estimates for 100, 200 and 300 h.p. for Chesterville, with Winchester taking a similar amount, were sent in August.

Engineers visited the district and obtained information relative to the amount of power the various towns would require and also addressed a meeting of the people at Chesterville, where a unanimous vote in favor of Hydro-Electric was given. Later in the year revised estimates were given and a contract has been sent to be signed by the Village Council.

Clinton

Clinton carried an enabling by-law in favor of Hydro-Electric at the January elections, 1912.

Later, complying with a request from the town authorities, Clinton was visited and the question of valuing the present plant and probable cost of remodelling same for 25 cycle power from the Niagara System discussed with the Mayor and others. This estimate was made, and also an estimated cost of \$39.00 per h.p. was submitted.

This is one of a group of towns that will be supplied with power from the Maitland River when the load in that district warrants the development.

Coldwater

On January 18th, 1912, a resolution was passed by the Village Council, requesting an estimate on the cost of power delivered at Coldwater, also costs of local sub-station and distributing system for lighting and power service.

An engineer made a complete investigation, and as a result it was decided to serve Coldwater with power from the Simcoe system, and that the sum of \$8,000.00 would be necessary for the purpose of building a system in the village.

On June 7th an enabling by-law was voted on, together with a money by-law to raise \$8,000.00 for a local distribution system for power and lighting service. Both by-laws carried with an overwhelming majority.

On June 25th, the contract for 250 h.p. was signed, and during the same month a construction foreman was sent to Coldwater to commence work on the local distributing system, which work was practically completed by October 1st. The work of installing interior wiring in residences and stores was begun during the early part of September, and about forty residences were completed by November 1st.

Owing to the fact that other towns in Simcoe County have voted on and contracted for the securing of power, the Village of Coldwater will now be served from a transmission line grouping all of these municipalities into one system, taking power from the Simcoe Railway and Power Company's plant located on the Severn River and delivered at Waubaushene. Power will be turned on in Coldwater about January 1st, 1913.

Collingwood

Estimates were made of the cost of power delivered to Collingwood from different sources, but after considerable investigation an estimate was given to the town on the cost of 700 h.p. at 2,200 volts, delivered in Collingwood from a line tapping the Simcoe Railway and Power Company's system near Waubaushene.

Copetown

See Report on West Flamboro.

Courtland

On November 22nd, 1911, a deputation from Courtland called in connection with the cost of power at Courtland. The whole situation was explained to them, but owing to the small demand it is not probable that the matter will be actively taken up at present.

Crediton

The enabling by-law was submitted to the ratepayers of Crediton at the Municipal Elections in January, and passed by a large majority.

Creemore

On August 8th an inquiry was received from Creemore in regard to Hydro-Electric power, and in September arrangements were made to investigate the local conditions.

In August a vote was taken and passed on the question of granting a franchise to a private corporation, to construct an electric railway, water mains, gas lines, and electric lines on certain highways in the township.

Dashwood

The enabling by-law was submitted to the ratepayers of Dashwood at the Municipal Elections in January, and carried.

Dereham Township

A letter, dated December 19th, 1911, was received from Dereham Township, stating that a petition had been received by the Municipal Council from several ratepayers, asking for an estimate of the cost of Hydro-Electric power. A reply to this letter was sent on December 27th, instructing them in regard to the procedure to be followed.

Doon

The Doon Twines, Limited, asked for an estimate on the cost of 100 h.p. delivered at their factory near Preston. Estimates were made up on a supply of power at 6,600 volts, and given to the Company, and a contract was signed by them, agreeing to take 100 h.p. at \$34.00 per h.p. per year at 6,600 volts.

Specifications were drawn up for the equipment to be installed in the consumer's station, and contracts were let for all of the equipment. The line is being built and power will be furnished early in the winter.

Downie Township

On January 17th a representative visited Selkirkville, to attend a public meeting in reference to Hydro-Electric power in that district. A committee was formed to actively canvass Downie and Ellice Townships. Petition forms and all necessary information were sent to the Secretary of the Committee on January 29th.

In reply to a letter, dated February 6th, a description of the method of distribution in townships was sent, also maps of the township were made showing roads available for the rural distribution.

A petition from the Township Council, asking for the cost of power and estimates of the cost of distributing power to the petitioners was received, and estimates are being made.

Drumbo

On October 31st an engineer visited the various villages in Blenheim Township. His report showed the total load at Drumbo to be 70-80 h.p., and the probable Hydro-Electric load which could be obtained 30-35 h.p.

Estimates of the cost of supplying power to the various villages in Blenheim Township were made.

Dublin

Inquiries having been received from the Police Village of Dublin in reference to obtaining a supply of Hydro-Electric power, a representative made a study of the local conditions during July. From the data obtained a report was submitted, covering a proposed distribution system for the village, together with which blank petition forms were sent for circulation among the residents, and instructions given as to further procedure on their part.

Dundas

During the past year the number of services has increased gradually until some two hundred and seventy customers are now supplied. No lines were built until a load had been secured to cover the cost of each extension, which has resulted in the system being self-sustaining even without a street light or town pumping load. The present street lighting contract expires at the end of this year, and arrangements are being made to instal an up-to-date town system. The officials also expect a load from a proposed town pumping plant where a synchronous motor will probably be installed for power factor correction. The control of the system has been handled by a committee of the Town Council, but a commission will be appointed the first of the year. The peak load at present amounts to about 585 h.p.

At the request of the town officials, a demonstration of the uses of electricity in the household and on the farm was given in the town at the end of October.

The town has been visited frequently during the year, and assistance given the local officials with contracts for new business, lawing out the extensions and assisting new customers in the purchase of their equipment.

Dunnville

Acting upon the directions of the Municipal Council, the Town Clerk of Dunnville wrote on February 21st, asking that estimates of the cost of installing a distributing system for Hydro-Electric power be submitted. On February 28th, a deputation interviewed the Chairman and members of the Engineering Department relative to Hydro-Electric matters, and instructions were given to prepare estimates of the cost of supplying 550 h.p., in addition to estimates for 350 h.p. previously called for.

On March 4th and 5th a representative made a thorough study of the situations and the requirements there. On the basis of the information obtained, estimates were made of the cost of a distribution system for the town. These estimates include station equipment, and were forwarded to the Mayor on May 11th.

Dunwich Township

In reply to an enquiry asking for a copy of the Act and other information in connection with Hydro-Electric power, a letter, dated December 2nd, 1911, was forwarded to the Township Clerk, enclosing the desired information.

On December 18th, 1911, a letter was received from the Clerk, stating that a resolution had been passed by the Municipal Council of Dunwich, authorizing him to make inquiries relative to a power supply for Dunwich Township.

Dutton

On December 21st, 1911, a letter was sent to the Town Clerk of Dutton, with a resolution form and all information necessary in regard to the procedure for applying for a supply of power.

Estimates were prepared for supplying Dutton with 150 h.p., in conjunction with West Lorne and Rodney, each taking 150 h.p.

A meeting of delegates from West Lorne, Rodney, Sheddon and Dutton, to talk over the situation with a representative of the Commission, was held on May 21st.

Two additional estimates for the cost of power to the towns in this district were made in June.

East Flamboro

The Township Council sent in a petition from some eight residents near Waterdown Village, asking for an estimate on the cost of service. This was returned for more information, and the Clerk was also advised to communicate at once if others desired service, so they might be considered with the applicants of the adjacent townships. A large fruit farm near Waterdown desired a supply of power, and as there were no further applicants the village was informed that the above customers could be supplied by them over a line to be built, as soon as the village stated that they would be responsible for the interest and sinking fund charges on any money expended in connection with the construction. The district was visited, and from the data obtained the required estimate was made up, but when it was found that only two of the first really desired service and that they were so far from the existing Waterdown line that the cost to them alone would be too high, the matter was dropped until a larger number in the district apply for service. The proprietors of the fruit farm were satisfied with the estimate, and the line will probably be built to them at once.

The Dominion Sewer Pipe Company's plant near the G. T. R. has been visited frequently, and they have been advised and assisted in laying out and purchasing equipment for extensions for their work. The connected load on the plant having increased from 150 h.p. to 275 h.p., has necessitated changing the station layout and installing a panel, so that their supply is entirely separate from Waterdown Village.

The load on the Waterdown line during October of the present year reached 167.5 h.p.

Elmira

The Village of Elmira had previously passed their enabling by-law, but up to October of the present year no further action had been taken on the part of the village. On the 9th of that month a resolution of the Village Council asked that estimates be prepared of the cost of installing a distribution system, covering power, house lighting and street lighting service. Accordingly, the place was visited,

and from the data obtained the required estimate was made up and submitted to them for consideration. At the same time they were given an estimate of the cost of power to the village of \$38.00 per h.p. per year on the basis of 225 h.p. being used, which power would be delivered at a voltage suitable for location distribution.

Elmvale

In the spring of 1912 the Police Trustees of the Village of Elmvale inquired as to the most suitable method of securing Hydro power for the village, and sought information respecting the taking over of the private plant which was then furnishing their lighting service.

Investigation revealed the fact that the village could be most suitably served from the transmission line about to be built from Waubauskene to Barrie, power being obtained from the Simcoe Railway and Power Company.

During the months of July and August the necessary expenditure required to remodel the local distributing system, install a modern series of tungsten street lighting service, and provide station equipment for the control of same was determined. The amount needed was found to be \$4,853.00.

The Trustees of the village decided to purchase the distribution portion of the plant in the village and to submit to the people the enabling by-law, also a by-law to raise \$7,000.00 in debentures to provide for purchasing the line portion of the old plant and to remodel the same for receiving Hydro power.

These by-laws were voted for on October 21st, 1912, and carried almost unanimously.

Arrangements were made for starting construction work on the local sub-station and distribution system in order to deliver the Hydro service to Elmvale during the early part of the new year.

Embro

An estimate on 125 h.p. for the Village of Embro was prepared and submitted on December 14th, 1911.

On May 23rd a letter was written to the Clerk, stating that it had been estimated that 125 h.p. could be supplied to the village for \$43.60 per h.p. power to be delivered at a voltage suitable for distribution.

Englehart

The Town of Englehart being about to sign a contract with a power company for a supply of electric power, submitted the same on August 4th for advice. The required report was made and submitted.

Eramosa Township

On November 7th, 1911, the Township Clerk forwarded a petition from the residents of Rockwood.

A copy of the Act and by-law and all necessary information in regard to the same were forwarded to the Clerk on November 20th, 1911.

On December 11th, 1911, an estimate of cost of 50 h.p. was made on the basis of Acton using 200 h.p. This estimate was forwarded to the Police Trustees of the village. The by-law was carried at the Municipal Elections.

Etobicoke

Petitions were received from the Township of Etobicoke, asking for an estimate of the cost of power to residents near Thistleton and Islington, together with some scattered over districts north of Mimico. A special study is being made of the conditions existing in this township with the object of giving power to the various applicants, and it is hoped that the required information may be furnished in the near future.

Exeter

This town passed the enabling by-law the first of the year. Various estimates on the price of power have been made up for Exeter in conjunction with the other municipalities in Huron County.

Fergus

At the request of the Village Council, Fergus was visited on May 3rd, in order that the Commission might be in a position to advise as to the best site for their proposed water works station.

A report was made and forwarded to the Council.

Fingal

An application for electric power for the Village of Fingal, and the Township, was received December 7th, 1911.

Petition forms were forwarded for circulation in the village and adjoining district, and then returned for an estimate of the cost of service.

This estimate is now being prepared.

Forest

On April 17th the Town of Forest was visited and a detailed report made on the present power plant. Investigations were also made as to the possibilities for increase in their power load.

Galt

Extensive additions to the street lighting have been made during the current year. The cluster street lights have been almost entirely replaced with single-light brackets operated from series regulators. In the residence district much headway has been made in installing a multiple system of ornamental standards, and it is expected that all wires, both telephone and lighting, will be placed underground; ducts for these have been installed.

The power load is growing as steadily as the lighting load. An additional 15 per cent. discount was granted to consumers during the current year—the earnings having shown this to be justified. Orders have been placed for additions to the switchboard equipment, these being necessitated by the increasing light and power load. The Water Works Commission, in conjunction with the Lighting Department, has purchased a synchronous motor driving two centrifugal pumps, to be installed in the water works plant; this motor is being used to correct the power factor for the Electrical Department at times of peak load.

General satisfaction has been expressed over operations in Galt. The prospects are very bright for a steady increase in both light and power loads.

Maximum Load, October, 1911.....	335	h.p.
“ “ “ 1912.....	613.5	h.p.

Georgetown

A resolution was passed by the Municipal Council of Georgetown on April 8th, 1912, asking that an estimate on the cost of power delivered to the village, and also one on the cost of a distributing system, be submitted. An estimate of the cost of 200 h.p., at 2,200 volts, was forwarded to the Council on May 16th. In October, it was decided that a by-law be placed before the people to enable the village to enter into a contract, and also a second by-law to raise \$20,000.00 for the reconstruction of a local distribution system. It was also decided that the vote on both by-laws be taken on November 11th, 1912.

Glencoe

Upon a request from the village a representative visited Glencoe in May, and reported on the present equipment and the probable load. Estimates have been prepared and are being revised. These will be forwarded as soon as completed.

Glen Williams]

On November 9th, 1911, Glen Williams was visited, and information was obtained to the effect that 40 h.p. could be utilized at once and 50-60 h.p. additional in about twelve months time. There would also be a demand for lighting service.

Gloucester Township

At the request of the Township Council of Gloucester a proposed agreement between the township and the Ottawa Electric Co. was gone carefully through and reported on, certain modifications being recommended.

Goderich

The enabling by-law was passed the first of the year, and since then the proposition of Hydro power has been discussed with the Council and the Board of Trade at various times. A number of estimates have been submitted on feeding the Huron County municipalities from the Niagara Falls system, via Stratford, also on the combination of Niagara and Maitland powers.

These estimates show that when the amount of power required in Huron County is sufficient to warrant the development of the Maitland River, this district would have power at a very cheap rate. In the meantime, power would be supplied from Niagara, which will enable the towns to build up their loads.

Goderich is to vote on a money by-law on January 6th, 1913, to cover the cost of reconstructing their present distribution system to receive and distribute Hydro power.

A new electrically driven water pump is to be installed, their present powerhouse remodeled and ornamental street lights placed in the centre of the town. Goderich has been working in conjunction with the other municipalities in Huron County, and before presenting the by-law the Council attended a meeting of Huron County delegates at Clinton where the whole scheme was fully discussed, representatives of the Commission being present.

Grantham Township

A petition signed by some one hundred and sixty residents of Grantham Township, asking for an estimate of the cost of power to them, was received. A thorough study was made of the local conditions, and estimates are being prepared of the cost of supplying approximately 150 h.p. distributed over the district covered by the petition. Meetings were also addressed, at which the question of supplying power to rural municipalities was discussed.

Granton

On March 7th a petition was received from the Village of Granton, applying for power under the Rural Distribution Act. The local conditions and requirements of the village were looked into, and estimates are being made of the cost of supplying power to the village on a line with Ailsa Craig and Lucan.

Greensville

See Report on West Flamboro.



Municipal Distributing Station, Guelph

Grey County

In November, 1911, the various towns and villages in Grey County were visited, in connection with the proposed submission of enabling by-laws at the January Municipal Elections. The by-law was passed in Owen Sound and Thornbury. Letters were written to the other towns, urging co-operation in the matter of obtaining power and asking the Councils what action they intended to take.

Grimsby

In November, 1911, the Council of Grimsby decided to take immediate steps to submit the short form by-law at the coming Municipal Elections. This by-law carried, and estimates were made of the cost of delivering power to the following towns in the Cayuga and Grimsby district:—Hamilton, Stoney Creek, Bartonville, Fruitland, Smithville, Beamsville, Grimsby, Winona, Canboro, Dunnville, Cayuga, Caledonia and Hagersville.

Guelph

An application for power having been received from a number of residents of Guelph Township west of the city limits, Guelph was visited, and after the question had been discussed with parties interested, the result was that the Guelph Light and Heat Commission agreed to build lines and supply the required power, after having obtained the necessary permission. This permission was granted, on the understanding that the rates be submitted for approval before the work of construction is commenced.

Considerable work was done in connection with the arrangements for rates for the City of Guelph, and an engineer visited the city in connection with this work to study the local conditions.

Recommendations as to more efficient lightning protection for the city system were made in August, in order that the possibility of trouble from that cause might be reduced to a minimum.

Guelph Township

See Report on Guelph.

Hamilton

Although the construction work in the City of Hamilton was taken care of by the local municipal staff, arrangements were made whereby the plans were submitted to the Engineering Department for approval, and the various questions as they arose were discussed and a decision made. These discussions covered details of line and station construction, and also rates, accounting forms, etc.

It was decided that the construction work in the central portion of the city should be made in a temporary manner, so that it could be replaced by an underground system, and following this the question of a common conduit system for the various companies with lines in that portion of the city was discussed in accordance with the Act of 1912. The Commission met with the Dominion Railway Board, and late in the summer ordered that a common system with separate manholes was to be used by the City Electrical Department and the Dominion Power and Transmission Company.

The construction of the distribution system and the street lighting system in the other portions of the city is well under way, and a great number of power and lighting consumers have been connected to the mains. The load taken during October, 1911, by the city, has increased from 1,307 h.p. to 2,118 h.p. during October of the present year.

Hanover

In November, 1911, a letter was received from the Village of Hanover, suggesting that the Hanover water powers be taken over and developed.

A reply to this letter, discussing the situation, was sent on November 22nd, 1911, and the suggestion made that to expedite matters an enabling by-law be sub-

mitted at the January Municipal Elections. On December 14th, 1911, however, information was received from Hanover that they had decided not to submit the by-law at the present time.

A resolution, asking for information and prices, which was passed by the Hanover Council, was forwarded on January 16th, 1912, and a representative visited Hanover on February 12th, and addressed the Council on Hydro matters.

Hagersville

During the fall of 1911, a canvass was made of the possible electric load in Haldimand County, and Hagersville was one of the villages visited. It was estimated that there would be a motor load of 200 h.p., and that two quarries immediately outside the village limits were using 100 to 200 h.p. each. The Reeve and Council were assisted in presenting the matter to the people, and after an enthusiastic meeting had been held, addressed by Hon. Adam Beck, the Council passed an enabling by-law, which was submitted to the ratepayers at the annual Elections. This was passed by a large majority.

The Crown Gypsum Company, at Lythmore, signed a contract for 400 h.p. in the spring, and Hagersville requested that the necessary supply line be built, so that joint use could be made of the line as far as possible. Before this request was granted, it was necessary for them to sign a contract for a supply of power, and in order that no mistake be made, a money by-law to raise \$6,000.00 to cover the cost of a municipal system was placed before the people, and carried almost unanimously. The village was visited, estimates prepared, and the Council assisted at public meetings called to consider the matter. A detailed layout of the system proposed for the village has been prepared and submitted to the Council. It is expected that the necessary apparatus will be purchased and installed as soon as these plans have been accepted. A contract for 150 h.p. at \$33.21 was sent to the village, which has been signed and returned.

Hensall

The enabling by-law was submitted and carried at the January Elections, 1912. A report on the supply of power to Huron County was sent to the Clerk in September, and a representative was present at the meeting of Huron County delegates held at Clinton, where the supply of power for the various municipalities was fully discussed.

Harriston

The question of the town purchasing the existing electric lighting plant was discussed in November, 1911, with members of the local Municipal Lighting Commission and of the Citizens' Committee, and it was decided that the local plant should be taken over by the town. On May 3rd estimates of a complete street, residence and commercial lighting system were submitted to the town. A thorough investigation of the cost of furnishing a supply of power to Harriston in connection with the demands of the other municipalities in the same district is being made.

Hespeler

As practically all the load was connected during the previous year, few changes have occurred in this town during the current year. The lighting business shows a steady growth and general satisfaction is expressed with the operation of the local system.

Huron County

Letters were written in January, 1912, to the clerks of the various towns and villages which passed the enabling by-law, urging co-operation and asking what action the different councils intended taking. The by-law was passed by the following:—

Bayfield, Blyth, Brussels, Centralia, Clinton, Dashwood, Exeter, Goderich, Hensall, Wingham and Wroxeter.

For further information regarding these municipalities, see that given under the individual names.

Ingersoll

This was one of the first towns to be connected to the Hydro System.

In the early part of the year, the town was visited and data secured and a complete set of plans of the distribution system of the town compiled, copies of which were forwarded to them.

An inspection was made of the lines within the town and a report submitted recommending the joint use of poles with the two telephone companies on some of the streets.

Assistance was given the local commission in giving estimates of cost of power to a number of prospective power users.

The results obtained in Ingersoll have been very satisfactory, the town being well lighted and well served from an electrical standpoint. The load taken by the town has increased from 107 h.p. in October, 1911, to 482 h.p. for the last month covered by this report.

Inglewood

Several estimates of the cost of supplying power based on different premises were prepared during September, but, owing to further development, were not considered as final. Additional estimates were prepared in October which included the supply of power to Georgetown and Terra Cotta.

Kincardine

The enabling by-law was submitted to the rate-payers at the January municipal elections and carried by a large majority.

For further information, see Bruce County.

Kingston

On January 1st, 1912, the rate-payers of Kingston voted by 1,813 to 188 votes in favor of making a contract for power for distribution by their municipal system.

In January the Grand Trunk Railway Company requested information regarding a supply of power for a stone crushing plant near Kingston Mills. Estimates on power from Waddington had previously been given to the Council, and these were given to the Company. These costs were as follows:—

Kingston	Cost of Power—plus Interest—plus Maintenance	Plus Sinking Fund	Plus Depreciation
3,000 h.p.	\$24.83	\$24.47	\$30.40
4,000 h.p.	22.04	24.22	26.64
5,000 h.p.	20.43	22.24	24.25

In March the Light, Heat and Power Commission of the Council asked for quotations from the Commission and from the Electric Power Company. The above estimated costs were given to the Council. The Company also gave a proposition and these were considered by the Committee as alternative tenders. A further estimate of \$32.50 for a low voltage line was given to the Committee. These estimates included the erection of a sub-station at Kingston and the installation of the necessary equipment for the step-down station with sufficient room for the frequency changing apparatus of the City. The operation of this station was also included and the power would be delivered to the municipality at 2,200 volts.

The Committee commissioned an engineer to give a recommendation as to which proposition they would accept, and in July a report was made which included a statement that, with the existing load factor, the Municipality could not afford to buy power from the Company.

This report was under discussion for some time and finally orders were placed for auxiliary steam equipment to help carry the load over the winter peak.

Lakefield

After a preliminary investigation of the local situation had been made, the enabling by-law was submitted and passed on January 1st, and later the local Board of Trade was informed that an entirely new distribution system would cost about \$13,000.00, while about \$8,700.00 would be needed if the existing equipment were taken over; neither of these amounts includes the cost of a site for a trans-former station.

Further action has been delayed, awaiting the decision of Peterboro.

Lake Shore Road

Estimates of cost were prepared in June and a contract was signed by the Toronto Golf Club for a supply of power to run a 25 h.p. pump. The service required by this contract commenced early in the summer, being supplied from Port Credit on lines carried on the Port Credit-Mimico pole line, along the Lake Shore Road.

The question of supplying several residences in the vicinity was also considered, and it is anticipated that a number will be connected.

Listowel

The enabling by-law was submitted and passed on January 1st. The estimated power requirements of the town amounted to 200 h.p. and an estimate of the cost of supplying this power was prepared.

London

During the year the growth of business in London has been very great, not only securing customers who formerly had been supplied by the Company, but, owing to the low rates quoted, securing a great number of new customers. For the nine months ending September 30th, 1912, the earnings of the Department had reached \$111,219.00, giving a profit after paying all fixed charges and a 5 per cent. depreciation charge on the cost of the system. The maximum load during October, 1911, was 1,609 h.p. and for October, 1912—2,681 h.p. The number of lighting customers at the end of the year were 4,200 with 200 power users.

There was a dispute as to the rate which should be charged by the Water Commission for the street lighting and this was finally forwarded to the Commission

for their recommendation. After a complete investigation of the costs as determined by the books and by segregating the different items of cost, a recommendation was given to the Water Commissioners as to the rate which should be charged.

Louth Township

A representative drove over part of this Township, and on October 24th addressed a meeting at St. Catharines and explained the method of procedure to obtain a supply of power, and told what was being done in equipping demonstrating farms at Ingersoll and St. Thomas to show the uses to which 2 h.p. could be put.

Committees were formed to canvass the township and application forms were left with the members of the meeting, many of whom signed at once.

Lucan

An application, dated November 16th, 1911, was received from the Village of Lucan, asking for an estimated price on 300 h.p. A reply was sent on November 20th, giving all information in regard to procedure and enclosing a copy of the by-law.

The by-law was submitted to the ratepayers at the January elections and carried by a large majority. In October a resolution of the Council was received from Lucan and Parkhill, requesting an estimate on the supply of 300 h.p. for each municipality. The matter was taken up and estimates are being prepared.

Markham

See Report on Newmarket District.

Midland

During the month of November, 1911, a 600 gallon motor-driven turbine pump was installed in the pumping station at Midland and is now handling the water supply of the town.

The operation of the Midland plant for the entire year has been most satisfactory, and the town has now 232 street lights in commission, 216 of which are series tungsten 100 watt capacity and the balance 6.6 ampere series arc lamps.

The power used during the past year has increased in connected load from 125 h.p. to 200 h.p., not including the pump motor, a total gain of 75 h.p., and the number of power customers from 8 to 16, being just double the original number.

The residential services at present connected total 420, the commercial services, such as stores, concert halls, etc., total 138 and combination residence and commercial services total 23, making a total of 581 lighting services, which, together with the 16 power services, makes a grand total of 597 customers, while the peak load has increased during the year from 222 h.p. (October, 1911) to 288 (October, 1912), a total gain of 66 h.p.

Negotiations have been under way for some time past re the annexation of what is known as "Dollar Town" to the Corporation of Midland, the ratification of the proceedings by the Municipal Railway Board being all that is needed to close the proceedings. This annexation will mean about 100 h.p. increase to the peak load during the coming year, in addition to the substantial natural growth of the present load that is anticipated.

Mildmay

See Report on Bruce County.

Milton

In response to a letter, dated January 3rd, from the Corporation of Milton, the town was visited and after investigation a report made on existing conditions and on the possible increase in demands for electric power. In this report, it was shown that the town had greatly outgrown its municipal plant and, in consequence, the service was poor. The report also pointed out that, with the low cost of Hydro-Electric power, the load might be increased from the present 70 h.p. to one of about 575 h.p.

On January 15th an application was received from the Corporation, asking for estimates on the cost of Hydro-Electric power to be supplied to that town and the cost of rebuilding and extending their distribution system to meet the new requirements.

Acting on this application, further investigations were made as well as reports made covering the various details.

On March 4th an estimate of the cost of rebuilding the distribution system was submitted and on May 16th the Municipality was given a cost of \$37.50 per h.p. per year for 500 h.p. at 13,200 volts, the town together with Rockwood, Acton and Georgetown to be supplied from the Guelph station.

In May this estimate was reduced to \$34.50 for 500 h.p. and \$30.75 for 700 h.p. at 13,200 volts on the basis of a 13½ mile spur taken from the Port Credit-Brampton line. After further information had been obtained an estimate of \$22,176.00 was submitted to the Town on October 2nd, this estimate covering the cost of rebuilding local lines, installing a new street lighting system, building lines to all power customers and installing station apparatus in a building already in use.

On October 13th the enabling by-law was submitted to the people and carried by a large majority, the vote being 189 to 4. On October 26th duplicate copies of contract were mailed to the Town Clerk. Owing to the increased use of electric power by other municipalities and the increase in the probable demand of power users to be supplied from the Milton station, this contract was made up to cover a supply of 700 h.p. at the rate of \$28.00 per h.p. per year.

In the meantime, one of the factories being in immediate need of electric power it was decided to proceed at once with a portion of the proposed changes in the local distribution system so that power might be delivered during the day from the municipal plant. Acting on a request from the Town, material for this portion of the work was ordered early in October, construction to commence as soon as the material arrives.

Acting as consulting engineers for the Town, specifications are being prepared and other steps taken for the purchase of station apparatus and for the building of the 13,200 volt transmission line. Material is also being ordered for the construction of the local distribution system.

Mimico

Previous reports record events terminating in the signing of a contract for 50 h.p. When this was done the control of the system was placed in the hands of a Commission. Materials were ordered and a construction force was turned over to the Village Commission. Early in March it was found desirable to construct lines to serve customers in portions of the Village that had not been covered by the previous estimate. To cover this extra work \$5,500.00 additional debentures were authorized by the Ontario Railway and Municipal Board. Power was supplied to

the Village circuits late in March and up to the present time some 150 customers and 75 street lights are supplied. Additional street lights are being installed at this time and more power users are being canvassed to build up the day load. The indications are that a substantial load will develop here of both day and night power.

The township surrounding the Village has been canvassed and a load of 25 h.p. is being supplied to a portion of this district at the Victoria Industrial School. (See Etobicoke Report.)

Mitchell

In the Town of Mitchell, the results obtained in their Municipal Electric Department have been very satisfactory. Their load has shown a steady healthy growth, increasing from 168 h.p. taken during October, 1911, to 201 h.p. for October of this year. The contract is for 200 h.p.

An engineer has visited the town at regular intervals to assist the superintendent in obtaining new contracts, and arranging other details. The standard system of accounting is being introduced, as also the standard method of charging for lighting and power service. The town has been taking advantage of the purchasing department of the Commission and obtain all their supplies in that way.

Nelson Township

The Council passed a resolution in November, 1911, asking that the question of power supply be taken up and estimates furnished. Later, in the present year, considerable interest was shown by the farmers in this district, some 200 of whom are expected to send in applications for power.

New Hamburg

Power for three of the largest and most important industries in New Hamburg is supplied by the Municipal Lighting Department. Much assistance has been given in securing this business. The lighting load is growing steadily and very satisfactory operation is reported for the current year. New Hamburg was originally supplied with power at 13,200 volts. Under a recent ruling, which provided that villages be supplied with power at 2,200 volts, the step-down transformers in the New Hamburg station, together with the primary oil switch and lightning arresters, have been taken over, thus relieving New Hamburg of some \$3,000.00 capital charge originally incurred. This municipality is doing a house wiring business practically at cost in the absence of a regular wiring contractor. By this means many houses have been wired with a resultant increase in lighting business.

New Toronto

See report on Etobicoke Township.

Newmarket and Newmarket District

During the summer of 1912 a union was formed of municipalities located north and northeast of Toronto for the purpose of obtaining a supply of power from Niagara Falls. To obtain data for the basis of making estimates of the cost of serving this district, the following places were visited and a thorough study made of their local conditions:—Bradford, Newmarket, Aurora, Richmond Hill, Markham, Stouffville, Uxbridge, and Port Perry.

From the information obtained, estimates were made of the cost of serving these municipalities from the transformer station near Port Credit.

Representatives visited these places and at a public meeting explained the situation to them.

Niagara Falls

In February the City Clerk wrote for estimates on power in blocks of 500 to 1,000 h.p. and estimates on the cost of 1,000, 1,200 and 1,500 h.p. were immediately submitted. No further steps were taken until October, when at the request of representatives of the Municipality the following estimated costs on 2,200 volt power delivered in the City were sent to the City Clerk, the cost including the necessary station building with all the step-down equipments:

1,000 h.p.	\$12 82	2,000 h.p.	\$12 24
1,500 h.p.	12 41	2,500 h.p.	11 99

Any greater increase in load would then require additional capacity, which would again raise the cost as follows:—

3,000 h.p.	\$12 14	4,500 h.p.	\$11 80
3,500 h.p.	12 03	5,000 h.p.	11 71
4,000 h.p.	11 90		

At the request of the City Clerk, copies of enabling by-laws and copies of the proposed power contract were also sent. Information having been furnished relative to Hydro-Electric power, a letter was received in September asking for a schedule giving estimated costs of power in blocks of from 1,000 h.p. to 5,000 h.p. advancing up steps of 500 h.p.

North Bay

The report of 1911 explains the situation in North Bay owing to the expiration of the franchise of the North Bay Light, Heat and Power Company on September 13th, 1911. As no definite decision had been made in the matter under discussion, the distribution company was given an extension of their franchise from month to month. Engineers were sent to North Bay for various conferences with the Council in the early part of 1912, and a revision of the valuation of the plant was also made. An estimate of the cost of delivering 1,250 h.p. from a proposed development at Smoky Falls was given to the Municipality, with the suggestion that temporary arrangements be made with the Power Company supplying the North Bay Light, Heat and Power Company. Rates were drawn up and recommended for use.

During the spring arrangements were made by the Power Company to take over the local distribution system from the North Bay Light, Heat and Power Company and in July the Power Company submitted a proposition to the town for a lighting franchise. After some delay the Council decided to submit to the people a by-law granting the Power Company a franchise, and, at the same time, asked them to vote upon a by-law enabling the Council to make arrangements for a supply of power with the Commission.

It was decided to submit to the people the question as to whether they should obtain a supply of power through the Commission, or turn it over to the private corporation.

Norwich

The distribution system, bought with the old plant, was rebuilt in the early part of the year, the purchase of supplies being made for the Town. Service at 2,200 volts from Woodstock was turned on on April 3rd, giving to this place for the first time an all night service for street and house lighting, as well as power.

Later, the sub-station equipment was installed and the Town was able to serve the new flour mill. Since then, with Hydro-Electric power as one of the attractions, they have secured another industry.

This is one of the places where the people appreciate the value of household utensils, such as irons, toasters, fireless cooker types of stoves, vacuum cleaners, etc. For a while a demonstration was made every Saturday afternoon and evening in one of the shop windows, some variation being made from week to week and, by this means and canvassing, those in control have been able to place several hundred pieces of labor-saving devices.

Apparatus and machinery was loaned to Norwich for use at the Fall Fair, the report in detail being included under the heading of "Exhibitions and Fairs." The results here have been good and, like a good many of the other municipalities, as soon as the power load is fully worked up, the citizens will find the result in the shape of reduced rates.

North Norwich Township

A meeting was held at Burgessville and all details of the supply of power to this township were fully discussed.

Ontario County

In connection with the application of Beaverton, Cannington and other municipalities in the County of Ontario for Hydro-Electric power, a representative visited the various municipalities in this district and made a detailed report in regard to the power question.

Letters were written to the various municipalities giving all the necessary information in regard to submitting the by-law: copies of the Act and petition forms were also forwarded.

The enabling by-law will be voted on by the ratepayers in the following municipalities:—Beaverton, Cannington, Woodville, Sunderland and Brechin.

Orillia

During the month of January, 1912, a report was made on general conditions, power, lighting, distribution system, rates, etc. Another report was made during February by the same engineer in connection with proposed new rates in Orillia.

In July, 1912, the Town of Orillia requested the privilege of obtaining consulting advice from the Engineering Staff, this advice to be given generally from week to week or month to month as the occasions demanded. This request having been granted, the Engineering Department recommended a construction superintendent to be engaged to make a detailed report as to the changes necessary in the local distribution system to place same in a first-class condition. From this time the regular district engineer assisted the Town of Orillia to supervise the work of reconstructing their distribution system.

In August, the town requested that the purchasing department assist them in procuring their supplies, from time to time. This request was granted and from that date Orillia has been purchasing all its electrical supplies through the medium of the purchasing department.

The Town Council requested further assistance from the engineering department in connection with the method of handling small power customers. An engineer visited the town and made a careful investigation of the situation, reporting in detail on the whole question, the main feature of this report being that a secondary net-work be installed for the purpose of serving all of the small power customers in the down-town district.

On October 22nd the same engineer met the Council, together with the Water and Light Commission and supplied them with further information in connection with this matter. At this meeting the advice given was accepted and the construction work started immediately.

Ottawa

Owing to the reduction in rates made during 1911, the load increased very materially, and in February, 1912, the Municipal Electric Commission asked the Council to order an additional 200 h.p., making a total of 3,100 h.p.

The annual report issued by the Municipality shows a business of \$153,102.00 during the year, with a net profit of \$27,716.00, which was transferred to capital account for depreciation, renewals and extensions.

Otterville

Various estimates have been made for power in Otterville and the surrounding country, but no decision has been reached.

Paisley

The enabling by-law was submitted to the ratepayers at the January Election, and carried by a large majority.

For further information, see Report on Bruce County.

Paris

In anticipation of an early supply of Hydro power for Paris, estimates of the cost of power and also on necessary changes in the local distribution system and station were prepared. Much reconstruction work on the distribution system has already been done by the local superintendent with suggestions from the Commission. A system of ornamental street lighting for the main street was laid out, at the request of the local authorities. Every effort is being made to have the local system ready as soon as a supply of power is obtainable from the new Brant station. Numerous inquiries have been made for a supply of power by the various industries in Paris. The local station is loaded about to capacity, so that new business is not being sought at this time. As soon as power is available, a large number of new customers will be connected.

Parkhill

A representative visited the Village of Parkhill in April, and obtained data from which a detailed report on the local power conditions was made. A resolution of Council was received in October from Parkhill and Lucan, requesting an estimate on the supply of 300 h.p. for each of the above municipalities. The matter is at present under consideration.

Penetanguishene

During the month of November, 1911, the installation of electrical equipment in the Penetang sub-station was completed and current turned on for the first time at noon on November 27th, delivery of power to the town being officially made on December 1st. Since that time very satisfactory results have been obtained from the use of Hydro power in this town.

During January, 1912, a 600-gallon motor-driven pump was erected in the power station, the water supply for the town being handled by this unit from the date of installation.

Penetang has now in commission 161-100 watt. series tungsten street lights, 103 residential services, 88 commercial services, and 11 power customers, a total of 202 customers, with an aggregate peak load of 248 h.p. As the peak load during the first month of operation of Hydro power was only 134 h.p., the total increase in consumption aggregates 114 h.p. Without the pump motor load, Penetang has now a total connected power load of 256 h.p.

Towards the close of the past year quotations were requested and furnished on a large block of power for use in connection with two new industries, one already actually erecting their factory, and the other about to commence shortly. This additional load will give the town a very large power consumption for the coming year.

Peterboro

Peterboro voted upon and carried the enabling by-law on January 1st, 1912. Considerable work has been done in obtaining power sites on the Trent Canal, from which the various municipalities in that district could be served. Dams No. 4 and No. 8 on the canal have been leased to the Commission by the Dominion Government.

Upon the request of the Mayor of Peterboro, a valuation of the Otonabee Power Company's distribution system was made, also a valuation of the Peterboro Light, Heat and Power Company's distribution system. An estimate was then given to the city on the cost of an entirely new distribution system which would cover the city complete, including an underground system on the main business thoroughfares, a complete street lighting outfit, etc., capable of supplying all the streets of the city for power purposes, as well as residential and street lighting. The Council are submitting a by-law to the city at the coming January Elections in 1913, to raise \$120,000.00. Public meetings have been held by the Chairman and others, at which various matters have been explained.

Petersburg

Arrangements were made in the autumn to hold a demonstration of "Electricity on the Farm" on the premises of a local farmer. This demonstration was largely attended by residents of this locality, who showed great interest in the results obtained.

Plattsville

On March 8th an estimate of the cost of supplying 150 h.p. was submitted. The cost was given as \$43.85 per h.p. per year.



Standard Lighting Bracket, Port Arthur



Port Arthur

Port Arthur

During the past year a great amount of work has been done in Port Arthur on their distribution system, in order to revise it in accordance with recommendations made. A complete street lighting system has been installed, using a large number of small units. In the downtown district there are, in some cases, and on the main street, four lights to each pole on each side of the street. Port Arthur is now lighted as well as any municipality of its size in the Province. The load is growing very much, but shows judicious use of the power derived from the Current River plant, as the power purchased from the Commission has not been increased. Plans are now being made, however, to increase the station capacity and build additional lines for the supply of power to some large prospective users, which will greatly increase the amount of power purchased. The rates are being modified to agree with the standards recommended, and the financial results have been most satisfactory. The engineering department is now engaged on the plans for remodelling the equipment in the Current River plant, for increasing the size of the sub-station, for extending the transmission lines, and are also laying out the plans for the electrification of the elevator now being constructed by the Dominion Grain Commission in Port Arthur.

Port Credit

The Police Village of Port Credit was one of the first to make application for a supply of power under the Rural Distribution Act of 1911, and enabling and money by-laws were subsequently submitted to the ratepayers. These by-laws were passed for the village by the Township Council on request of the Village Trustees. The money by-law was for \$7,500.00, and covered the cost of a sub-station and distribution system throughout the greater part of the village for street and house lighting service. Public meetings were held after the details had been arranged with the Trustees, and the by-laws were carried by substantial majorities. Acting on a resolution of the Trustee Board, the necessary material was purchased and the system constructed. Before the construction force finished this work, extra material was ordered and installed on request of the Trustees, to supply additional customers, who desired service, who were located in districts not included in the original estimate. The cost of the system complete was, approximately, \$9,000.00, and a sufficient number of customers have been obtained since power was supplied on July 5th to meet all charges. Recently a number of services were installed in the township near the Toronto Golf Club. The necessary construction was erected complete and handed over to the village to operate.

Port Dalhousie

A request was received from the village, asking for an estimate on the cost of power and assistance in arranging for the purchase of a system then in operation by a local manufacturing concern. The district was visited a number of times and data obtained, and when the Ontario Power Company agreed to supply 100 h.p. at \$17.00 at 2,200 volts at their St. Catharines sub-station, this price was submitted to the village. The village then requested that a contract be prepared for the supply of power as soon as possible.

A contract was sent to them which was signed and returned, and material was ordered for the supply line to be built from St. Catharines. A superintendent was appointed by the Village Council, and he was instructed in the changes to be made

in the system that had been purchased by the village. Material was ordered for these changes, which were necessary since they were going to use 25 cycle three-phase power instead of 60 cycle single phase, for which the old system had been built. Orders were issued to rush the work on the line to St. Catharines, and the Construction Department concentrated all their available energies on the work. A spare submarine cable was loaned by the Welland Canal authorities, and power was turned on in the village on November 17th. As soon as possible the village intends reconstructing their lines to give more efficient operation.

It is anticipated that a substantial power load will develop here, and that the lighting service will be greatly increased.

Port Elgin

A report, dated May 28th, states that Port Elgin and Southampton are supplied by the Saugeen Light and Power Company, which began operations fourteen years ago and furnishes 2,200 volt power. Two years ago their generator was replaced by a 6,600 volt machine, and they erected a small transformer station in Southampton and another in Port Elgin, stepping down from 6,600 to 2,200 volts.

See Report on Bruce County.

Port Perry

See Report on Newmarket District.

Port Stanley

In the early part of this year the village distribution system was rebuilt by the Municipality under the supervision of the engineering department. As this part of the system was ready before the station equipment arrived, arrangements were made with St. Thomas for a temporary supply of 2200 volt power, service being turned on about the middle of March.

The station equipment arrived and was installed in time to care for their summer load when it came on. During the rush season the benefits of Hydro-Electric were fully appreciated; the steam plant having been outgrown, the contrast between the service from it and from Hydro-Electric was striking. Later, the lines were extended and the Beach sub-divisions taken care of, which, under the old system, were not served.

It was decided in April to install an electric pumping system with supply tank, piping, hydrants and house services. Contracts were let for the different parts of the plant and this Fall the system put into operation, thus giving another service to the residents that, without Hydro-Electric, would have been too expensive to operate.

The results in general have been very gratifying, especially so in view of the fact that it is one of the places where power cost was high.

Prescott

During the last month of 1911 an estimate of the cost of power and also of a distribution system was sent to the town. A contract for 300 h.p. at 13,200 volts at a cost of \$24.54 per h.p. per year was forwarded to the Clerk in May which was signed and returned.

Upon receipt of this contract the material for the line from Morrisburg was ordered and work was commenced. This line will be completed the first of the year 1913. Complete information and blue prints for the town distribution system were forwarded which will enable the town to order material and begin construction.

Preston

No large additions have been noted during the current year, but the load, both light and power, has grown in a very satisfactory manner. All the larger industries in Preston are using Hydro, and express great satisfaction therewith. The 3-170 k.w. station transformers being now fully loaded will shortly be supplemented by a second bank of transformers of the same size, which have been ordered.

A contract has been closed by the Commission on behalf of the town with the Doon Twines, Limited, of Doon. This load will be taken from the Preston Municipal station on a 6,600 volt line.

General satisfaction is expressed with the operation of the electric light department during the current year and considerable new business is in sight. During October, 1911, the maximum load in Preston was 321.7 h.p. After twelve months' operation this load has more than doubled, reaching 657.5 h.p. during the last month covered by this report. The indications are that this load will continue to grow rapidly.

Puslinch Township

Several estimates on the cost of power to be supplied near Puslinch station, were prepared during the year and the local situation was looked into.

Richmond Hill

See Report on Newmarket District.

Rodney

Estimates were prepared on the basis of supplying this place with 150 h.p. in conjunction with West Lorne and Dutton, each taking 150 h.p.

A meeting of representatives from West Lorne, Rodney, Shedden and Dutton with one of the Commission's engineers was held in May, when the situation was discussed.

This situation will be further investigated.

See Report on Dutton.

Russell

Upon a request of the Trustees of the Police Village of Russell, an engineer addressed a meeting of the ratepayers explaining the policy of the Commission.

Later, estimates were prepared for the district and a price of \$28.00 per h.p. per year for 750 h.p. was submitted. Plans of the village were obtained and an estimate for a distribution system was prepared and forwarded.

Sandwich

See Report on Windsor.

Scarboro Township

A petition was received from the Township of Scarboro asking for an estimate of the cost of power to the township under the Rural Distribution Act, 1911. As a result of this application, a study is being made of the conditions to be met, with the idea of submitting them an estimated cost covering the most advantageous system of distribution. The petition covered practically the whole of the township. A number of conferences were held with officials of the township for the purpose of assisting them in circulating their petition and also of discussing the various conditions with them.

Seaforth

The work of completing the municipal system for the town was rushed along under supervision, the material being ordered through the Purchasing Department.

By May everything was working quite satisfactorily, new users coming on and new street lighting being installed rapidly. It is expected that a reduction of rates to the light users will take place next year.

During the last month covered by this report the Town of Seaforth took a load of 242 h.p.

Sebringville

Several estimates of the cost of supplying power were prepared in the early part of the year, and, on June 6th, Sebringville was informed that the cost would be \$18.10 per h.p. per year, on the basis of 50 h.p. being contracted for, power to be delivered to the village at a voltage suitable for distribution.

Shedden

The possibilities here were investigated in connection with Dutton, Rodney, and West Lorne. Representatives from Shedden attended the meeting held in Dutton May 21st.

The results here were the same as those noted under Shedden.

Simcoe

Estimates on the cost of power to Simcoe and several other places in the vicinity were prepared in October.

Smith's Falls

Acting on a request from the Board of Trade of Smith's Falls, asking that a report be made on their local conditions and the possibility of receiving power in conjunction with other eastern municipalities, that town was visited early in the spring, when complete data was obtained. A study was made of the operation and plant of the two existing companies in regard to the service given the customers in Smith's Falls and as to their arrangements for handling their various loads. The power requirements of the waterworks system were also carefully looked into. In addition to these, a complete study was made of the town in regard to their future requirements, and, as a result of the investigation, a complete report was made and forwarded to the town early in June, giving full details of the present state of operation and advice in regard to the handling of any future load.

Southampton

See Report on Bruce County.

South Norwich Township

A meeting of the farmers was held at Otterville and later part of the district was canvassed and a number of contracts were signed.

Sparta

An estimate was asked for in the early part of the year for serving the Village of Sparta with electric power.

This district was visited and an estimate based on the report made for furnishing this village, together with Union, was submitted. It was proposed to supply both villages from a station to be erected at the junction of the road between Sparta and Union and the Port Stanley 13,200 volt line.

No further action has been taken up to the present.

Stayner

On May 15th, 1912, Mayor Bell, of Stayner, requested, by a letter addressed to the Chairman, information *re* supplying the Town of Stayner with Hydro-Electric Power. This letter and the resultant correspondence was followed later, viz., July 20th, by a resolution of the Town Council asking for estimates on 150 and 200 h.p.

During the month of August the town was furnished with information as to the proper methods of procedure for negotiating the purchase of the private plant operating the lighting system of the town. The town was visited for the purpose of estimating on the cost of remodelling the local distribution system, and providing the necessary equipment for receiving Hydro power. As a result of this investigation, it was estimated that \$1,500.00 would be required over and above the amount to be paid for the purchase of the private plant.

On October 3rd, 1911, an engineer met the owner of the private plant in Stayner, together with the Mayor of the Town, to discuss matters pertaining to the purchase of this plant by the Municipality. On the evening of the same day a special meeting of the Council and ratepayers was held to consider the results of this conference and receive additional information *re* the supply of power from the Commission through its representative engineer.

At the present time the proposition is being considered of voting on the necessary by-laws at the coming Municipal Elections.

Stouffville

See Report of Newmarket District.

Strathroy

During November and December, 1911, various estimates were prepared for supplying power to Strathroy in conjunction with Sarnia.

A representative visited the town on May 9th and reported on the power conditions and estimates were prepared for Strathroy both individually and in conjunction with Lambeth.

Streetsville

On September 23rd Streetsville and the surrounding district was visited and a report made on the general local conditions and probable power requirements.

Meadowvale was also visited.

St. Thomas

In November, 1911, on request of the Corporation through the City Engineer, plans and specifications for a motor-driven turbine pump, capacity 2100 imp. gals. per min. for a head of 58 ft., were prepared and tenders called for from the different manufacturers and after careful consideration the contracts were awarded.

This pump was installed in the early part of the summer, permission being given to run the line to serve it over Port Stanley 13,200 volt pole line. In February the control of the Hydro-Electric system in this city was transferred from the City Engineer's Office to the Light, Heat, and Power Department.

A good deal of work was done in the earlier part of the year, giving information and estimates to the different manufacturers who were not using electric power. Results began to come in the latter part of the year, when contracts were signed by a number of large manufacturers and prospects are good for closing a number more in the near future. The new contracts and prospects amount to a connected load of about 1740 h.p.

The ratio between the average load and the maximum demand in St. Thomas has been higher than the average in the other towns and cities. Up to the present the administration of the Light, Heat, and Power Department has been by a council through a committee. It is practically decided that a commission will be elected at the next January election to take over this department.

During the past year the load taken in St. Thomas has increased from 470 h.p. in October, 1911, to 670 h.p. during the last month, a very satisfactory growth.

Sunderland

See Report on Ontario County.

Tavistock

Estimates have been given to the Council on the basis of 200 h.p. and 50 h.p. and propositions have been made to the local milling company for the use of power. The estimates of the cost of serving the village are now being revised, in accordance with the reduction in cost of power on the Niagara System, due to the greatly increased load.

Teeswater

Information was received on December 16th, 1911, to the effect that the by-law would not be submitted to the ratepayers at the coming municipal elections.

For further information, see Report on Bruce County.

Terra Cotta

Inquiries were received from the brick companies located near Terra Cotta in regard to the cost of power delivered to them. Estimates were made and submitted quoting the companies a cost of \$36.00 per h.p. per year on the basis of 150 h.p. being used.

Thamesford

The signed contract for this Police Village was forwarded on November 22nd, 1911, for 100 h.p. at \$48.73.

After some delay, owing to the fact that Thorndale was likely to come in, an engineer called on April 28th, interviewed the Secretary of the Board of Trustees, and some of the prospective power customers, and found that there is a flour and grist mill and a planing mill as possible users, besides the lighting of stores, residences and streets. The mill could not enter into a contract at this time. He called again on July 26th and found that the mill could not enter into a contract yet, owing to an option of sale having been given.

There were so many changes in the possibilities of this district from this time till the end of the year that nothing further could be done.

This contract will doubtless be carried out early in the year.

Thorndale

This town was visited on November 15th, 1911, and after those interested had been seen, the report was made that there was a demand for 160 h.p.

An estimate of the cost of a distribution system was prepared and forwarded to the Trustees on December 1st, 1911. By request of the Secretary of the Board of Trustees a meeting was held in the early part of February, 1912, and the method of procedure for submitting by-laws explained.

In March an estimate of cost for 100 h.p. of \$50.65 per h.p. per year for 2,200 volt power was given them.

In Thamesford the mill was under an option of sale for several months, and being the largest possible power consumer, retarded Hydro-Electric matters. At the end of the year a new estimate was ordered, taking into consideration the changed conditions and including the possibility of securing contracts with a large number of the petitioners from the surrounding rural district.

Tillsonburg

This is one of the towns in the zone that is being served that has natural gas for a competitor as an illuminant and power producer. In spite of this, nearly all the stores and a great number of the houses are using electric light.

The load is increasing. The Harvest Tool Company is one of the largest users, their plant being modern in its methods of manufacture throughout, and electric drive is one of the factors that make it so. Service to this plant was turned on January 5th. Most of the supplies needed have been purchased for the town for the whole of the year. In the early part of the year inspection of the town's distribution system was made and instructions given which enabled them to place their work in first class condition.

One or two manufacturing firms have been negotiating with the town, with a view to locating there, one of the attractions being Hydro-Electric power.

The demands of Tillsonburg have steadily increased from 128 h.p. in October, 1911, to 188 h.p. during the last month.

Toronto

The development of the year in Toronto is best explained by stating that during the month of October, 1911, Toronto paid for 3,318 h.p. and during the month of October, 1912, they paid for 13,037 h.p. It is expected that this demand will exceed 17,000 h.p. before the end of the year.

In November when the street lighting was taken over by the City, the demand jumped to 5,697 h.p. and has steadily increased during each succeeding month. On the first of November, there were, approximately, 12,000 users of power and light. During the summer arrangements were made between York Township Council, the Toronto Hydro-Electric Commission, and the Hydro-Electric Power Commission, whereby the portion of the Township adjacent to the City limits should be furnished with power by the City at city rates. This arrangement will help to further increase the amount of power purchased by the city.

See Report on York Township.

Toronto Township

A large petition of some 380 signers was received from this township, and some lines have been built out into the township from Port Credit. A vigorous canvass of the whole township is now being carried on and contracts are being signed by the residents.

When a certain number of contracts have been signed up, lines will be extended through the township.

Union

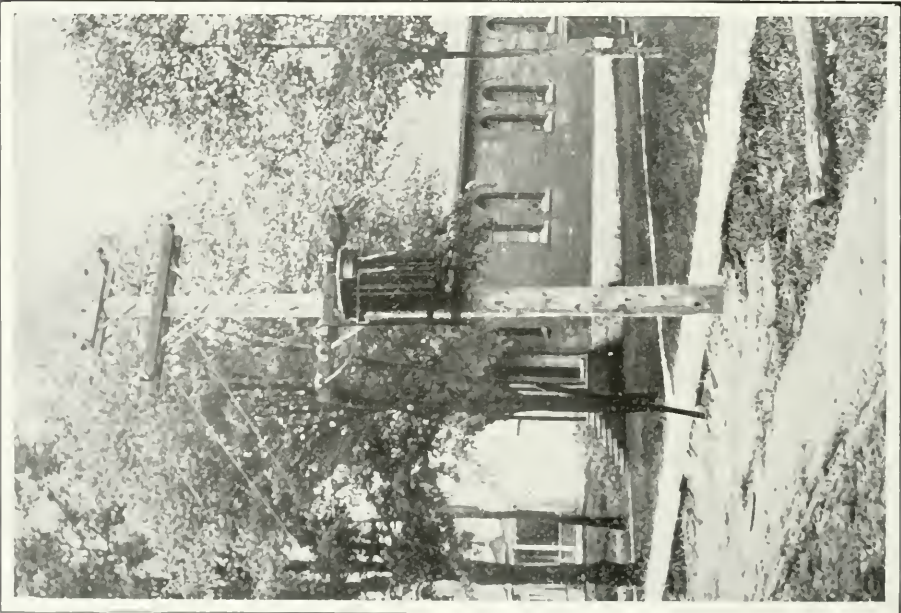
See Report on Sparta.

Uxbridge

See Report on Newmarket District.



Municipal Line Construction, Norwich



Standard Method of Mounting Transformers, Tillsonburg

Walkerton

Information was received from Walkerton on December 12th, 1911, that the Council has not yet considered the by-law, and that the same would not be submitted at the January municipal elections.

On May 14th and 15th an investigation was made of the situation and a detailed report made.

For further information, see reports on Windsor and Bruce County.

Waterdown

During the fall of 1911, a contract for 50 h.p. was presented to the Village, which was signed and returned after enabling and money by-laws had been carried by substantial majorities. Data were obtained and an estimate of \$6,500.00 was sent to the Reeve, covering the cost of installing a system. The Village decided to curtail the expenditure to \$5,000.00, which was the amount of the money by-law.

Acting on a resolution of the Council, material was purchased for the Village system and was erected in accordance with a plan approved by the Council. Two power users with a 30 and 20 h.p. motor respectively were connected and additional street lights were erected which carried the total cost of the system to almost \$7,000.00. Additional debentures for \$1,500.00 were issued on authority of the Ontario Railway and Municipal Board to cover this extra construction.

During the first months of operation only a few customers were connected, but some 55 services have been installed to date, and those in charge are much pleased with the results. Extra street lights will likely be erected in the near future and another power customer is expected before the end of the year, which will allow the rates to be lowered.

The Village has indicated that they desire to supply some customers in the township, and this request has been granted.

During the last current month the load in Waterdown reached 40 h.p.

Waterloo

A very complete system of ornamental tungsten standards has been installed on the main street of Waterloo. The use of electric light is steadily growing, and the number of power customers is also increasing, due to the excellence of the service and the efforts of the local superintendent. The local lines and apparatus in Waterloo are in first-class condition, due largely to intelligent supervision by the town authorities, who were given some assistance by the Commission's representatives.

Maximum load October, 1911—241.3 h.p.

Maximum load October, 1912—388.5 h.p.

This shows a very gratifying increase when it is recalled that many of the factories are wood-working plants. Further increase of this load is certain.

West Flamboro

Requests for estimates on the cost of power were sent in by residents of the township both direct and through the Township Council. The Clerk of the Township was asked to collect a list of all the applicants, so that they might be considered with similar requests of the adjacent townships.

Last year an engineer spent some time in the district between Dundas and Copetown, and estimates were made up for supplying various customers. Because

of the difficulty of financing and operating a system scattered over so large a territory for the small amount of load, it was not thought advisable to send out these estimates. Since this time, it has been decided to advance money to build all such lines and to turn them over to some adjacent municipality to supply and operate until such time as there is a sufficient number of similar lines in the township to make it a paying investment for the township to make a contract directly with the Commission and to do their own operating. The data have recently been gone over and revised to date, so that a line may be built out of Dundas as far as Greenville. The matter has been taken up by Dundas, which town is anxious for a supply of power for the pumping plant in Greenville, and they are prepared to be responsible for the interest and sinking fund on any money spent in erecting the system. Negotiations have been opened with the C.P.R. Telegraph Company for purchasing a portion of that Company's line through the district, which is to be transferred to a new right of way.

West Hamilton

See Report on Ancaster Township.

West Lorne

See Report on Dutton.

Welland

The question of municipal ownership having been advocated in Welland, and the matter submitted for consideration, they were advised to obtain, if possible, an agreement with the Welland Electric Company, whereby a valuation would be made of the Company's plant for the town. Failing in this, the town was advised to pass the enabling by-law authorizing the Council to enter into a contract with the Commission for a supply of power. The enabling by-law was passed at the January elections with a large majority.

The Welland Electric Company refused to come to a satisfactory arrangement in regard to the purchase of their plant, whereupon the town requested that an estimate of the cost of providing a distribution system be submitted. The town was visited and an estimate made giving \$45,000.00 as the amount required, which estimate was submitted to the town for their consideration. On August 5th a by-law was submitted to the ratepayers which was carried by a large majority, authorizing the Council to raise \$45,000.00 for the acquisition of an electrical power and lighting distribution system.

Weston

During the year the village load has increased to 100 h.p. and from present indications the rates for all classes of service will have to be reduced. An office has been opened in the Town Hall by the Water and Light Commission and the management of the plant placed on a thorough business-like basis. Additional improvements are also planned. The village has been assisted in purchasing their supplies and also in securing contracts with new power customers.

Many requests have been received for a supply of power in the surrounding township and this work will be taken up in the near future.

Reports received indicate that the ratepayers are much pleased with the supply of power.

West Oxford

During the first part of the year a letter was received from the Clerk of the Township, asking for information regarding the method of procedure to secure a supply of power. An engineer called, met the Reeve and Clerk, explained to them the method of procedure and arranged to meet the Reeve later to get them started with their petitions. The petitions were not received, but a plan was sent in in the fall showing location of and amount of power needed by a number of farmers. Owing to the fairs and farm demonstrations, it was impossible to get the estimate of cost to them before this report was made.

Warton

On November 21st, 1911, an engineer visited Warton and interviewed the Chairman of the Light Committee and also the Mayor. A detailed report on the local conditions was made on December 1st, 1911, and a letter written advising the Town to submit the enabling by-law. On December 20th a representative addressed a meeting in connection with the by-law and a telegram was received on January 2nd, stating that it carried by a large majority.

Winchester

In February a request was received from Winchester, asking for an estimate on the cost of power. An Engineer was sent to make a report on the requirements of the Village and the district, and as a result, an estimated cost of \$24.00 per h.p. per year on the basis of 100 h.p. being delivered at 4,400 volts was submitted.

Acting on this estimate, the enabling by-law was passed by the Council and submitted to the people for a vote on September 28th, and was carried by 113 to 14. An estimate for a distribution system for the Village was made and forwarded.

Wingham

The enabling by-law was submitted to the ratepayers of Wingham at the January elections and carried by a large majority.

A copy of the report on the Maitland River situation was forwarded to the Town Clerk on May 18th.

Windsor

During October an investigation was made of the power situation in Windsor, Walkerville and Sandwich, in order that a revised report might be obtained covering this district. A complete canvass was made of the various power consumers in these municipalities, and from the data obtained a complete report was made.

Woodstock

A request was received in December, 1911, for an adjustment of rates for their use. Early in January new rates were recommended, and on adoption, were put into effect. This was necessary as the revenue was exceeding the cost.

During the year some assistance was given the town in connection with the effort on their part to have Dundas Street cleared of poles, and in proving to one or two of the manufacturers that the rate they are being charged is advantageous to them. Great improvement in the lighting of Dundas Street has been made by installing 48 5-lamp iron standards of a neat design. These were turned on on July 12th, by Mr. Beck, and it was made the occasion for a celebration and demon-

stration, the Park and streets leading to it being specially illuminated, a number of men prominent in the affairs of the Province being present to take part. A still further improvement is being made by installing neat pole brackets in a double row east from the point where the 5-light standards terminate. Besides these, a great many lights have been added in the districts which had not been lighted. The increase in the use of electricity in the residences both for light and for utensils has been great, as has also its use in the business places. The power load has also made some increase.

Woodville

See Report on Ontario County.

Wroxeter

In January, 1912, an enabling by-law passed by a vote of 70 to 8. The demands of this municipality have been considered in connection with those of Huron County. See Report on Huron County.

York Township

A number of applications were received through the York Township Council, asking for house lighting and street lighting service in several districts lying outside the limits of the City of Toronto. Estimates were prepared of the cost of giving this service and an agreement was entered into with the Toronto Hydro-Electric System, whereby the System agreed to furnish the required service, the Commission bearing the cost of installing the necessary equipment, and the Toronto Hydro-Electric System paying fixed charges on such cost in addition to the cost of management, making collections, etc. Under this arrangement, construction has been started in a number of districts. Service will be given at the same rates as used in the City of Toronto.

Miscellaneous

Preliminary work for, and correspondence with, a number of other places, including the following, was commenced during the year; in some cases estimates were prepared.

Bleinheim Township	Hawtrey	Logan Township
Dunbarton	Ilderton	London Township
Dungannon	Glanford Township	Lucknow
Freelton	Kemptville	Thedford
Fullarton	Kent Centre	Waubauskene.
Hannon		

MUNICIPAL ACCOUNTS

Recognizing that the success of the Hydro-Electric System, as a whole, would necessarily depend on the success of the municipal units individually, the Legislature, in 1912, gave the Hydro-Electric Power Commission control of the rates to be charged consumers by the municipalities, (Power Commission Act, Section 9, Clause 22-b), the system of accounting to the employed, (Section 9, Clause 22-b-2), and of any surplus which might accrue in the local operation, (Section 9, Clauses 22-C, a, b, c, and d), all to the end that there might be no failure to furnish service at actual cost without loss or profit.

A system of uniform accounting was prepared, based on the best judgment of electrical engineers and chartered accountants, and a copy furnished to each municipality. This is in sufficient detail to be available for the use of the largest municipality, and suitable for smaller municipalities by the elimination of some elaborate details.

A municipal auditor was added to the general staff in May, 1912, and has made an audit of the accounts of the electrical department of twenty-four municipalities, making such changes as were necessary in order to show the costs of operation and divisions of revenue, and to determine whether or not the local systems were on a self-supporting basis.

In many towns and villages, where no local Commission had been elected, the plants were still being operated as a department of the municipality, all revenue being turned in to the town or village treasurer, and all expenditures made from the common funds.

In such cases, we have opened a separate set of books for the Hydro-Electric Department, in which we charge the municipality with all revenue turned over to it and with the proper charge for street lights, at the same time crediting the municipality with all payments on account of Hydro, including the interest and sinking fund on debentures.

The annexed statement shows the results found in all the municipalities which it has been possible to reach in the limited time. The amount of fixed charges or interest and sinking fund payments on debentures is the amount actually paid by the municipality, and, in some few cases where the debentures have been issued during the past year, does not represent the total normal annual fixed charges.

The statement does not, of course, include any construction work chargeable to Capital Accounts, and shows that almost without exception the earnings have been ample to cover all expense, and that the non-user has not contributed through tax levy to the support of this enterprise.

The fixing of rates to the consumer of the various classes of service has involved a new departure in accounting in determining the unit costs. In the operation of a steam plant the principal factors are the interest on the capital investment and the amount of fuel necessary to produce each unit of current.

The Hydro-Electric System involves the sale of a service rather than a commodity, the cost being determined by the capital investment, and the maximum demand rather than the total kw-hr. or h.p. consumption. It, therefore, became necessary to determine the installation and distribution cost of each municipal plant chargeable to the four principal revenue classifications of residential lighting, commercial lighting, power and street lighting and to divide the monthly provincial power bills into the same classifications based on the relative maximum demands of each. This is a combined engineering and accounting problem which is being worked out and forms the basis of recommended rates for the different municipalities. The ultimate result of this will be that each class of service will be self-supporting, the rates being automatically adjusted to meet the actual cost of fixed charges and operating costs.

REPORT SHOWING OPERATION OF HYDRO-ELECTRIC DEPARTMENTS IN MUNICIPALITIES, BASED ON ACTUAL EXPENDITURE AND REVENUES FOR TWELVE MONTHS

Location	Population	Total Plant Value	Total De- benture Debt and Overdraft	Operating and Maintenance Expense	Fixed charges, Interest and Sinking Fund	Total Opera- ating Ex- penses	Revenue	Surplus avail- able for plant extension and depreciation
		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Baden	800	5,235 18	5,000 00	629 47	325 26	954 73	1,148 11	193 38
Berlin	16,000	287,897 80	236,021 26	38,970 22	15,612 53	54,582 75	74,214 74	19,631 99
Brampton	3,500	69,077 37	65,471 89	9,207 20	223 95	9,431 15	13,246 13	3,814 98
Dundas	4,300	32,734 01	31,000 00	2,868 70	1,172 65	4,041 25	4,940 69	899 44
Galt	10,500	116,116 59	131,300 76	21,977 53	6,412 65	28,390 88	36,678 57	8,288 39
Guelph	15,200	169,743 74	123,569 06	48,434 03	10,241 85	58,675 88	75,625 51	16,949 63
Hespeler	2,500	23,613 05	20,157 03	8,607 25	2,140 21	10,747 46	10,841 71	94 25
Ingersoll	5,000	80,947 70	89,935 16	22,186 06	5,004 97	27,191 03	28,951 61	1,760 58
Midland	4,660	67,890 04	45,112 57	9,195 69	4,527 81	13,723 50	20,643 58	6,920 08
London	50,000	402,253 50	393,833 38	100,811 74	23,044 66	123,856 40	141,153 16	17,296 76
Mitchell	1,800	20,058 53	17,234 46	11,677 44	2,784 85	14,462 29	15,312 23	849 94
Norwich	1,200	13,484 38	14,537 82	2,201 68	.....	2,201 68	2,586 58	384 90
New Hamburg	1,500	22,866 95	21,536 95	7,567 36	1,544 27	9,111 63	11,082 62	1,970 99
Penetang	3,568	33,357 21	30,094 94	8,953 77	1,977 68	10,911 45	12,641 24	1,729 79
Port Credit	600	8,377 75	7,387 10	352 17	121 98	623 88	623 88	149 67
Port Stanley	1,000	17,357 56	19,095 00	3,168 52	924 60	4,093 12	4,863 45	770 33
Preston	4,000	68,486 80	67,096 40	18,362 20	4,110 54	22,472 74	27,558 45	5,085 71
St. Mary's	3,500	60,713 88	52,589 65	16,195 02	4,616 15	20,811 17	19,729 98	1,089 19
St. Thomas	14,000	122,085 08	101,271 01	32,009 02	7,398 84	39,407 86	53,452 79	14,044 93
Scaforth	2,000	25,453 65	25,000 00	14,605 89	1,695 75	16,301 64	17,367 52	1,065 88
Stratford	13,000	141,753 26	113,072 23	25,057 46	9,720 55	34,772 01	43,372 01	8,594 00
Tillsonburg	2,800	32,950 58	35,685 28	14,003 59	1,780 36	15,783 95	17,002 40	1,218 45
Waukegan	800	7,246 36	7,246 36	1,402 44	459 11	1,861 55	2,004 65	143 10
Waterloo	4,500	69,084 94	56,578 06	14,313 13	3,175 04	17,488 17	23,928 52	6,440 35
Weston	2,000	25,209 98	26,136 54	4,818 92	1,588 49	6,407 41	8,124 12	1,716 71
Woodstock	10,000	122,330 23	82,076 05	33,314 01	7,023 68	40,337 05	44,718 55	4,381 50
Toronto	376,538	3,734,911 33	3,647,098 95	500,564 26	144,075 68	644,639 94	726,763 55	82,123 61
Ottawa	87,062	566,473 84	417,014 22	114,698 16	29,330 00	144,028 16	179,097 18	35,069 02

MUNICIPAL RATES

In the last Report there is outlined a standard schedule of rates for power service which was adopted by a number of municipalities, and has been in use up to the present time. This schedule consisted of a series of base rates which were adopted by all the municipalities, from which was deducted a local discount which was varied according as the costs of service to the municipalities were greater or less.

These base rates consisted of certain flat rates varying by a series of steps from \$50.00 per h.p. per year for users taking 3 h.p. or less down to \$40.00 per h.p. per year for 101 h.p. users or greater. As an alternative to the flat rate there was a differential rate, consisting of service charges varying from \$15.00 per h.p. per year for small users down to \$12.00 per h.p. per year for large, together with which were consumption charges varying from 3.5c. per kw.-hr. for small users down to 1.25c. per kw.-hr. for large, the changes in service and consumption charges being coincident and forming a series of steps. The local discounts used with this schedule of base rates varied from $33\frac{1}{3}$ per cent. in Dundas down to nothing in St. Thomas, St. Mary's and Stratford.

The Toronto Hydro-Electric System developed a schedule of power rates intended to give a scale of charges eliminating all steps, the principle of which was adopted and recommended to some of the other municipalities for their own use. This schedule consisted of two service charges and three consumption charges. The consumption charges consisted of a monthly charge of \$1.35 per h.p. per month for the first 10 h.p. of connected load or maximum demand, and \$1.00 per h.p. per month for all additional load. The consumption charges were made to vary in accordance with the cost of delivering power to consumers in each municipality and to have a ratio to each other of 3 to 2 to 1. The first consumption charge was used for all consumption up to the first 50 hours monthly use of load, the second charge for all additional consumption up to second 50 hours monthly use, and the third charge for all additional consumption. Rate schedules formed after this plan were used without any local discount.

In some municipalities using this system a schedule of flat rates was also used. This flat rate consisted of two charges having a ratio to one another of 1.35 to 1, the first charge for the first 10 h.p. of connected load or maximum load and the second for all additional load.

In applying these different rates in the various municipalities, it was the intention that the differential system of charge should be used with all customers whose monthly bills should be less than the flat rate when based on actual use, while the flat rate was to apply to customers having good load factors.

During the past year the question of rates has been given much study, and it was decided, after checking the results secured in a number of municipalities with the recommendations made by electrical associations and various public service commissions, that the flat rate of charge should be entirely abandoned. A new schedule was drawn up along the lines of the Toronto system of charge with the exception that the ratio of consumption charges was changed from 3-2-1 to the ratio 12-8-1, the consumption charges as before, being varied in accordance with the cost of service in each municipality. With base rates made after this latter plan the same class discounts are used as with all previous schedules, viz:—

Class "A": —24 hour unrestricted use—No discount.

Class "B":—24 hour restricted use—10 per cent. discount.

Class "C":—10 hour unrestricted use—10 per cent. discount.

Class "D":—10 hour restricted use—33⅓ per cent. discount.

Monthly power bills are also subject to a prompt payment discount.

After using these different rates for a year or two in different municipalities, it was decided to standardize the following:—

All power users to pay on a base rate consisting of a service charge of \$1.00 per month per h.p. of connected load, or per h.p. of maximum demand where the customer installs a satisfactory maximum demand meter, and consumption charges, the three rates of which latter, being in the ratio of 12 to 8 to 1, are based on the cost of service to the municipalities. The standard class discounts are given from these rates, together with a prompt payment discount which varies slightly.

It is the intention that, at the beginning of the coming year, all municipalities that have not previously done so, will discontinue the use of the schedule of rates at present in use, whatever they may be, and adopt a schedule formed after the pattern outlined above, thus making the system of charging for power service uniform over the whole of the power union.

With the inauguration of Municipal lighting service through the Hydro-Electric Power Union, it was decided that the charge for lighting service for residential lighting should consist of two charges, viz:—A service charge based on the floor areas in the house lighted and a consumption charge based on the kw-hr. consumption, as indicated by a Watt-hour meter. For a service charge, it was decided that 4c. per 100 sq. ft. should be used in all municipalities.

The consumption charge was made very low and was varied in different municipalities in accordance with the cost of power to the municipality. Monthly bills made up on this basis were to be subject to a prompt payment discount.

In municipalities where this system of charge has been adopted, it has met with general approval, and has shown itself a most fair system of charge, both from the standpoint of the consumer and that of the municipality.

For commercial lighting it was at first decided to charge two rates based on the kw-hr. consumption as indicated by the Watt-hour meter. For all power consumed up to the first hour's daily use of demand a higher rate was to be charged, and for all additional consumption a lower rate which was to be the same as the meter rate charged to house lighting customers in the same municipality. The larger rate was at first fixed at two and one-half times the smaller rate and adopted in that form by most of the municipalities, a prompt payment discount being allowed on monthly bills. After a year's operation it was found that this system of charge was too high in that it produced too much revenue, and consequently, the higher rate has been reduced to twice the lower. This latter system, along with a prompt payment discount, is being adopted by all the municipalities.

RATES IN USE IN MUNICIPALITIES FOR POWER AND LIGHTING SERVICE

Municipality	Base Power Rates						Lighting Rates				Street Lighting	
	Flat Rates			Differential Rates			Domestic	Commercial		Prompt payment discount		
	1st ten h.p. per h.p. per year	All additional h.p. per year	1st ten h.p. per month	All additional h.p. per month	1st 50 hrs. per month	2nd 50 hrs. per month		1st 30 hrs per month per kw-hr.	All additional per kw-hr.			
	h.p. per year	per h.p. per year	h.p. per month	per h.p. per month	per h.p. per month	per h.p. per month	Per kw-hr.	Per kw-hr.	Per kw-hr.	per kw-hr.		
Stratford.....	Use first stand'd schedule, no local discount											
Berlin.....	..	..	..	..	10%	..	5	4	12	5	10& 10	\$12.00 per 100 w. lamp.
Waterloo	..	..	..	..	10%	..	4	4	12	4	10	\$9.65 per 100 w. lamp.
Ingersoll	..	..	..	..	no	..	10	10	10	10	10	\$10.00 per 75 w. lamp; \$9.00 per 60 w. lamp.
St. Thomas.....	..	..	..	..	..	..	3	5	12	5	10	\$10.91 per 80 or 100 w. lamp.
St. Mary's.....	..	..	..	..	..	..	4	6	12	7	10	\$11.40 per 50 w.; \$12.75 per 75 w.; \$55 per Arc lamp.
Dundas.....	..	..	..	..	33⅓%	..	4	3½	10	3½	10	\$13.00 per 80 w.; \$65 per Arc lamp.
Woodstock.....	..	..	..	..	10%	..	3	4	10	4	20	
Preston	..	..	..	..	10%	..	4	4½	12	4½	10	\$12.00 per 40 w. or 80 w. lamp.
Hespeler.....	..	..	..	..	no	..	10	10		10	10	\$15.00 per 40 w. lamp.
Galt.....	..	..	..	..	10%	..	4	4	12	4	25	\$5,000 total.
Mitchell	..	..	..	..	no	..	Use special rates 70 c. month, min'm.					\$20.00 per 100 w. lamp.
London	..	..	..	..	10%	..	5	5	5	10		

	..	..	..	no.	..	..	10	10	10	10	10	\$7.00 per 60 w. lamp, no renewals.
New Hamburg	..	..	..	..	..	..	10	4	3	8	3	10
Hamilton.....	Use special schedule											
Ottawa	..	..	..	..	..	..	10	4	3	12	3½	10
Toronto.....	..	..	..	1½c.	1c.	¾c.	10	4	3	8	3	10
Brampton	\$45.00	\$39.00	1.35	3.3	2.2	0.3	10	6	6		6	20
Thillsonburg.....	50.00	40.00	1.35	3	2	1	10	4	5	12	5	10
	Use first stand. schedule, no local discount											
Midland	40.20	32.64	1.35	2½	1½	¾	10	4	4	12	4	10
Penetang	40.20	32.64	1.35	2½	1½	¾	10	4	5	12	5	10
Seaforth.....	56.00	46.75	1.35	4c.	2½	1½	10	10	10		5 to 20	
Weston.....		1.35	1.00	3.3	2.2	0.3	10	8	8		10	\$12.00 per 80 w. lamp.
Mimico.....		1.35	1.00	3.6	2.4	0.3	10	4	4½	12	4½	10
Pt. Credit		1.35	1.00	3.7	2.4	0.3	10	4	4½	12	4½	10
Waterdown		1.35	1.00	3.5	2.4	0.3	10	4	5	12	5	10
Norwich		1.35	1.00	3.5	2.3	0.3	10	4	4	12	4	10
								10	10		10	
Beachville		1.35	1.00	3.9	2.6	0.3	10	4	5	12	5	10
Pt. Stanley		1.35	1.00	5.5	3.7	0.5	10	4	5	12	5	10
Baden		1.35	1.00	4.5	3.0	0.4	10	4	5	12	5	10
Guelph.....	Use special schedule											
Caledonia.....		1.35	1.00	3.7	2.5	0.3	10	8	Net		8	Net
Port Arthur	Use special schedule											
								4	4	10	4	10
	Use various special rates											\$8.30 per 100 w.; \$5.00 per 60 w. lamp.

FIRST STANDARD SCHEDULE: Base Rates for Power Service.

H.P. of Motors or Peak Load.....	1-3	4-10	11-25	26-50	51-100	101 up
Flat rate per h.p. per year, based on installed h.p. or maximum demand.....	\$50	\$48	\$45	\$43	\$41	\$40
Differential rates. Fixed charge per installed h.p. per year or maximum demand	\$15 00	\$14 40	\$13 80	\$13 20	\$12 60	\$12 00
Meter rate per kw-hr. of consumption.....	3.5c.	3.0c.	2.5c.	2.0c.	1.5c.	1.5c.

SPECIAL SCHEDULE: Base Rates for Power Service in Hamilton.

H.P. of motors or peak load	1-3	4-10	11-25	25-50	51-100	101 up
Flat rate per h.p. per year, based on installed h.p. or maximum demand.....	\$37 50	\$36 00	\$33 75	\$32 25	\$30 75	\$30 00
Differential rates, fixed charge per installed h.p. per year or maximum demand	\$6.00	\$6 40	\$6 75	\$7 50	\$8 25	\$9 00
Meter rate per kw-hr. of consumption.....	2.6c.	2.25c.	1.9c.	1.5c.	1.1c.	.95c.

No.....

Dated.....191.....

NAME

APPLICATION FOR ELECTRIC POWER SERVICE.

THE UNDERSIGNED, hereinafter called the Consumer, hereby requests the, hereinafter called the Corporation, to make the necessary service connections and furnish electrical energy at the premises, owned by, The electrical and occupied by, as a, energy is required to operate, Maximum demand kilowatts of, total horse-power capacity.

The Consumer and the Corporation agree to abide by the "Conditions" on the reverse hereof and to hold this Application as a contract when signed by the Consumer and accepted by the

The Consumer further agrees to (1) take from the Corporation all the electrical energy required by Consumer for power purposes for a term of one year from the date hereon and to pay monthly for such energy and service in accordance with the rates on the reverse hereof under Class (2) to commence payments within one month from the date of connection.

SIGNED ACCEPTED FOR THE CORPORATION BY

Consumer.

DATE 191.....

Connected Load.....Horse-power.

Maximum Demand.....Kilowatts.

Date Connected 191.....

" Meter Installed 191.....No.....

RATES AND DISCOUNTS.

SERVICE CHARGE—\$1.35 per H.P. per month for the first 10 H.P. of Connected Load or Maximum demand and \$1.00 per H.P. per month for all Load in excess of this amount.

CONSUMPTION CHARGE—Up to the first 50 hours monthly, use of Load,.....c. per K.W.H.

Additional consumption up to the second 50 hours' use, ...c. per K.W.H.

Remaining consumption, - - - - - c. per K.W.H.

DISCOUNTS—Class "A," 24 hour unrestricted use; no class discount.

" "B," 24 " restricted " 10% off above rate.

" "C," 10 " unrestricted " 10% " "

" "D," 10 " restricted " 33 $\frac{1}{3}$ % " "

Less 10% on whole Bill if paid within 10 days from date of Bill.

CONDITIONS.

1. The Consumer agrees to provide convenient and safe space for the Corporation's meters (for which no rental charges will be made), wires and all other appliances in said premises, and further agrees that no one who is not an agent of the Corporation or otherwise lawfully entitled to do so, shall be permitted to remove, inspect or tamper with the same, and that the properly authorized agents of the Corporation shall, at all reasonable hours, have free access to the said premises for the purpose of reading, examining, repairing or removing their said meters, wires and other material and appliances.

2. Meters and all other appliances of the Corporation, in said premises shall be in the care and in the risk of the Consumer, and if destroyed or damaged by fire, or any cause whatsoever, other than ordinary wear and tear, the Consumer shall pay to the Corporation the value of such meters and appliances, or the cost of repairing or replacing the same.

3. The Consumer hereby expressly authorizes and empowers the Corporation at its option to remove the meters and all other material and appliances installed at its expense and cut off the supply of electricity and terminate this agreement whenever any bills for said service are in arrears or upon violation by the Consumer of any of the terms and conditions of this agreement.

4. The Corporation agrees to use reasonable diligence in providing a regular and uninterrupted supply of electricity, but does not guarantee a constant supply of electricity, and will not be liable in damages to the Consumer for failure to supply electricity to said premises.

5. This agreement shall not be binding upon the Corporation until accepted by it through its proper officer, and shall not be modified or affected by any promise, agreement or representation by any agent or employee of the Corporation unless incorporated in writing into this agreement before such acceptance.

6. The Consumer agrees that on request of the Corporation, he will deposit with the Corporation the sum of dollars to be held by Corporation as a guarantee that Consumer will fulfil all the terms of this agreement.

7. The Consumer will provide all lines on the premises and all lines connecting premises with the point of delivery, and maintain the same in efficient condition with proper devices, the whole according to the requirements of the Canadian Fire Underwriters' Association.

8. This agreement shall continue in force after the term herein mentioned from year to year until terminated by a notice in writing, given by either party hereto at least one month before the end of the term or any yearly term thereafter.

9. It is agreed that the signature of the parties hereto shall be binding upon their successors or assigns, and that the vacating of the premises herein named shall not release the Consumer from this agreement, except at the option and by written consent of the Corporation.

10. If required to fix the basis of billing, the Consumer hereby authorizes the Corporation to install and repair maximum demand or curve-drawing meters, other measuring devices at Consumer's expense, or to make tests from time to time to determine the maximum amount of power used. The Consumer agrees not to make any changes in or additions to his apparatus or connected load after the same has been so determined, except with the written consent of the Corporation.

11. All electrical and mechanical equipment used by the Consumer shall be subject to the reasonable approval of the Corporation, and the Consumer shall so take and use the electrical energy as not to endanger the apparatus of the Corporation or cause any wide or abnormal fluctuations of its line voltage. All motors shall be selected with reference to securing the highest feasible power factor at all loads. Minimum power factor when operating Consumer's maximum load shall be 80 per cent. for motors up to 10 H.P. and 85 per cent. above 10 H.P.

Form C.

NAME Residence Class 1
 Commercial " 2

No.....
 Dated.....191.....

APPLICATION FOR ELECTRIC LIGHTING SERVICE.

THE UNDERSIGNED, hereinafter called the Consumer, hereby requests the
 , hereinafter called the Corporation, to make the necessary service connections and
 furnish electrical energy at the premises within the
 of owned by and occupied by
 as a The electrical energy is required to operate
 Total connected kilowatts Maximum demand kilowatts.

The Consumer and the Corporation agree to abide by the "Conditions" on reverse hereof and to hold this Application as a
 contract when signed by the Consumer and accepted by the

The Consumer further agrees to (1) take from the Corporation all the electrical energy required by Consumer for lighting
 the above premises for a term of one year from date hereof and to pay monthly for such energy and service in accordance with rates
 on the reverse hereof under Class (2) to commence payments within one month from the date of connection.

SIGNED ACCEPTED FOR THE CORPORATION BY
 DATE 191.....

Floor Area—Net.....Sq. Ft.

Date Connected 191.....

Installed Capacity.....Watts.

" Meter Installed 191.....No.....

RATES AND DISCOUNTS.

CLASS 1—RESIDENCE LIGHTING—A Service charge of 4c. per month per 100 sq. ft. of floor area, plus a Consumption charge of c. per Kilowatt Hour (K.W.H.)

CLASS 2—COMMERCIAL LIGHTING—For Stores, Theatres, Factories, Hotels, Offices, etc. No service charge.

Consumption charge of c. per K.W.H. for first 30 hours' monthly use of installed capacity,
and c. for each K.W.H. above.

DISCOUNTS—Less 10% on whole Bill if paid within 10 days from date of Bill.

CONDITIONS.

1. The Consumer agrees to provide convenient and safe space for the Corporation's meters (for which no rental charges will be made), wires and all other appliances in said premises, and further agrees that no one who is not an agent of the Corporation or otherwise lawfully entitled to do so, shall be permitted to remove, inspect or tamper with the same, and that the properly authorized agents of the Corporation shall, at all reasonable hours, have free access to the said premises for the purpose of reading, examining, repairing or removing their said meters, wires and other material and appliances.

2. Meters and all other appliances of the Corporation, in said premises shall be in the care and in the risk of the Consumer, and if destroyed or damaged by fire, or any cause whatsoever, other than ordinary wear and tear, the Consumer shall pay to the Corporation the value of such meters and appliances, or the cost of repairing or replacing the same.

3. The Consumer hereby expressly authorizes and empowers the Corporation at its option to remove the meters and all other material and appliances installed at its expense and cut off the supply of electricity and terminate this agreement whenever any bills for said service are in arrears or upon violation by the Consumer of any of the terms and conditions of this agreement.

4. The Corporation agrees to use reasonable diligence in providing a regular and uninterrupted supply of electricity, but does not guarantee a constant supply of electricity, and will not be liable in damages to the Consumer for failure to supply electricity to said premises.

5. This agreement shall not be binding upon the Corporation until accepted by it through its proper officer, and shall not be modified or affected by any promise, agreement or representation by any agent or employee of the Corporation unless incorporated in writing into this agreement before such acceptance.

6. The Consumer agrees that on request of Corporation, he will deposit with the Corporation the sum of.....dollars to be held by Corporation as a guarantee that Consumer will fulfil all the terms of this agreement.

7. The Consumer will provide all lines on the premises and all lines connecting premises with the point of delivery, and maintain the same in efficient condition with proper devices, the whole according to the requirements of the Canadian Fire Underwriters' Association.

8. This agreement shall continue in force after the term herein mentioned from year to year until terminated by a notice in writing, given by either party hereto at least one month before the end of the term or any yearly term thereafter.

9. It is agreed that the signature of the parties hereto shall be binding upon their successors or assigns, and that the vacating of the premises herein named shall not release the Consumer from this agreement, except at the option and by written consent of the Corporation.

MUNICIPAL PURCHASES

An important branch of Municipal work is the purchase of material and apparatus for the maintenance and operation of existing lines in the sub-stations, equipment of extensions, and the apparatus and material required for Municipal Electrical Departments of the Province and many of the Provincial Institutions.

The system and the municipalities require yearly large quantities of material and apparatus. By buying in quantities for the municipalities as a whole each municipality can obtain the benefit of lower prices than could be secured by individual purchases. At the present time there are sixty-six Municipal Electrical Departments purchasing, in this manner, and with the increased quantities which may be expected with the expansion of this central buying idea, the Department will be in a position to obtain still better prices.

A new storehouse in Toronto has nearly been completed and as quickly as possible arrangements will be made to keep on hand the various material likely to be required, so that, in most cases, shipments will probably be made very promptly. The general work of the Engineering and Purchasing Staffs is covering a field ranging from the purchase and installation of the largest electrical and hydraulic apparatus for the equipment of power and lighting plants in various sub-stations and municipalities down to the minor supply items. With the advantage of complete organization, expert engineering advice is given, and the services of the Purchasing Staff offered to any of the Municipal Electrical enterprises in the Province.

A summary of the more important purchases made for the Municipalities during 1912 is approximately as follows:—

RURAL DEMONSTRATIONS

In the endeavor to get the best results from his land, the Ontario farmer has been constantly handicapped by the great scarcity of skilled farm labor. Of late years the situation appears to have grown more acute, so that at present it is difficult to obtain sufficient labor of any kind to work the larger farms in a proper manner. As a result most of the heavy work of the farm must be performed by the farmer himself. Life, in many cases, becomes a hardship, and the younger generation seize any opportunity to leave the farm for the city.

The recent introduction of the telephone and labor-saving machinery has undoubtedly relieved matters to some extent, but the farmer now demands, for many purposes, a supply of power which will be continuous, flexible and cheap, and will enable him to make use of labor-saving machines.

It is not a difficult matter to convince the farmer that electric power is the best sort of power for him to use to operate his farm machines, for from experience he is familiar with the shortcomings of the windmills, gasoline and steam engines. He is, however, unfamiliar with the extent to which he can use electric power, its measurements and its cost.

The Power Commission Act, 1911, was passed by Legislature March 24th, 1911, to facilitate the distribution of electric energy to rural districts, and the response to this in the form of inquiries and petitions was so great that it was decided to carry out an educational campaign amongst the farmers in those districts where power could be supplied at reasonable cost.

It was agreed that the best way to accomplish this was by actual demonstrations of threshing, silo filling and other adaptations. Detailed description of these demonstrations, as well as the data collected, are given later. The figures are of the utmost value in determining a basis for billing power, and have greatly aided the Commission in demonstrating to the farmer how he can arrange his work to obtain a low rate for power.

A farmer's demands for power vary throughout the year. His ordinary maximum demand may never exceed 5 h.p., but for silo filling, threshing, sawing wood, etc., he requires from 15 to 25 h.p. This is the direct result of the old methods of doing work, namely, getting along as best he can by hand or with a team of horses, and reserving all the heavy operations until such a time as he could hire a steam engine by the day to do this work in the shortest possible time.

With a steady flexible supply of power always available, these methods are both inconvenient and unnecessary. They also greatly increase the cost of supplying the district. If, however, the farmers can be induced to employ a smaller motor for a longer period, resultingly improving their load factor, it is evident that the capital cost of installation and the cost of power will be less.

Take the operation of grinding corn, oats, barley, etc., in one instance a farmer, during the winter, uses a 15 h.p. motor one hour a day for two days a month to grind 100 to 200 bushels, he also employs this same motor to saw wood, and requires 10 h.p. for two hours. It is evident that he could do this work with, say, a 4 to 5 h.p. motor and by suitable arrangements also do his silo filling and threshing. The accompanying diagram shows the typical maximum power demand for grinding and sawing wood under the old and new methods. Corn and straw cutting, it might be mentioned, require from 3 to 4 h.p.

However, for threshing and silo filling, where the large outfits are now in use, and until methods have been devised to employ the small power outfits, a 15, 20 or 25 h.p. motor and transformer to be owned by a syndicate is recommended. The power for this will be furnished to the syndicate from the distributing lines at 2,200 volts and used for heavy work. There must be enough power contracted for by the members of this syndicate to cover the demand of the large motor, while it is being used. For example: Assume that ten farmers, each contracting for 2 h.p., form a syndicate. On threshing and silo filling days the nine lend their power to the one for doing his work and he, in turn, with the eight others lends it to the next man and so on until all have finished, curtailing their individual uses so that the amount of power taken these particular days will be no greater than that allowed by contract.

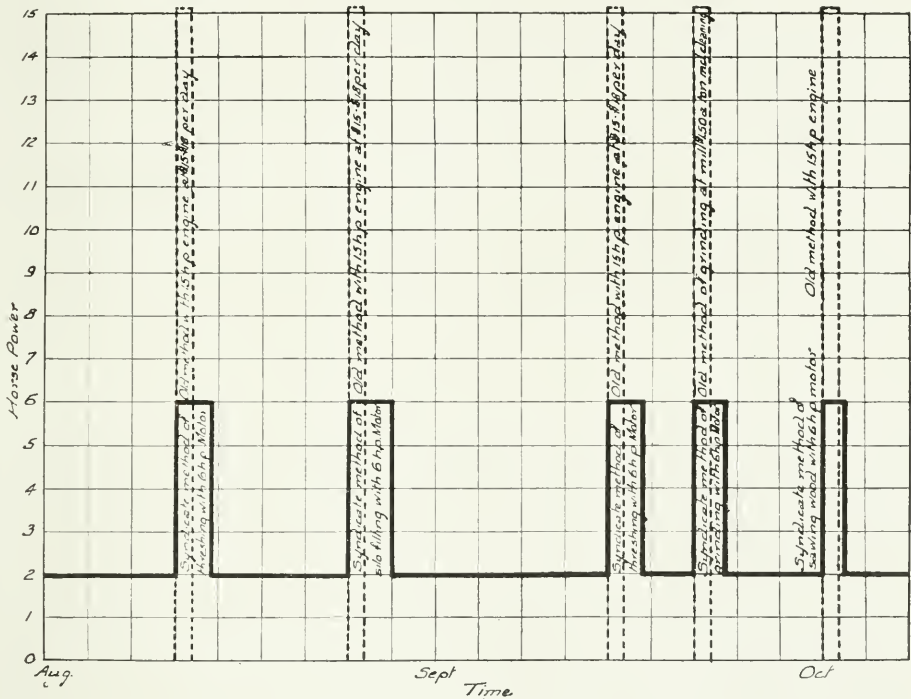


Chart showing Syndicate Methods

One of the largest associations in the United States, appreciating the possibilities of the uses of electricity on the farm, appointed Committees in 1911 and 1912 to investigate conditions. Very little was done by the Committee the first year, although letters were sent out asking for information, the object being to present reports of concrete facts to the members of the Association. Reliable data of this nature is not easily obtained, and, previous to the work of this Committee and the Hydro-Electric Power Commission, practically no data on the power requirements of farm machinery had been published in this country.

During the fall demonstrations the engineers of the Commission explained to those interested.

1. Under what conditions the Commission would deliver power.
2. How the farmers by co-operation may cheapen the cost, and finally how they could cheapen the cost by each contracting for small amounts of power and using it steadily during the day or night.

Fairs and Exhibitions

Beachville Demonstration—June 25th, 1912

The Board of Trustees of Beachville decided to celebrate the inauguration of Hydro-Electric power on June 25th, and arrangements were accordingly made with the different manufacturers for the loan of apparatus. The Methodist Church driving shed was secured for the purpose and decorated with cedar boughs, bunting and several rows of colored lamps. A few 100-watt lamps were also installed to provide illumination, and strings of colored incandescent globes and flags were suspended across the streets through the main part of the village.

A list of the apparatus exhibited is as follows:—A milking machine, automatic electric pump, cream separator, a 3 h.p. single phase motor, a 1 h.p. single phase motor, an exhaust fan, a washing machine with motor attached, an electric fireless cooker, an electric range, two vacuum cleaners, two coffee percolators, an electric soldering iron, an 8 inch fan motor, 12 in. fan motors, an electric tea kettle, a tea samovar, a 1 qt. water heater, a $\frac{1}{2}$ pt. water heater, a griddle-cake cooker, a radiant grill, an electric curling iron, a cigar lighter, a chafing dish and toasters. All of the apparatus, including the range and fireless cooker, were operated. A 4-lb. roast of beef, a dozen potatoes, besides cookies, coffee, toast and tea were cooked on the two latter and served to the spectators. A cow was also milked, and the milk passed through the cream separator and the cream on to the refreshment stand, where part of it was served to the members of the Chairman's party.

Speeches were made by a number of prominent men and, after a speech by Mr. Beek, in which he explained the uses of the different apparatus on exhibition, the benefits accruing to those who use them, the possibilities in the way of serving villages and rural districts, and the many other uses of electricity, the street lights lighted for the first time.

There were about 1,700 people present, and all seemed to be very much interested in the exhibit.

Canadian National Exhibition—August 24th to September 7th

Early in the summer of 1912 the Board of Directors of the Canadian National Exhibition, recognizing the wide-spread interest of the people of the Province relative to employment of Hydro-Electric energy for various domestic and agricultural purposes, offered space for a comprehensive exhibit to demonstrate the various applications of electricity.

They allotted for the demonstration 1,800 sq. ft. of floor space in the eastern wing of the Process Building, with a frontage of 120 ft. on the main aisle and 15 ft. on the cross aisle. The exhibit was to include a representative collection of electrically operated farm and domestic appliances. The space was divided into three distinct sections: the first being employed for the office and information bureau, was designed to represent a garden pergola 15 ft. square: the second, or centre section, of 1,125 sq. ft., with a 75 ft. aisle frontage, was arranged to represent a farm yard where various machines were operated by electric motors, and the third and last section of 450 sq. ft., with an aisle frontage of 30 ft., was arranged to represent a model cottage.

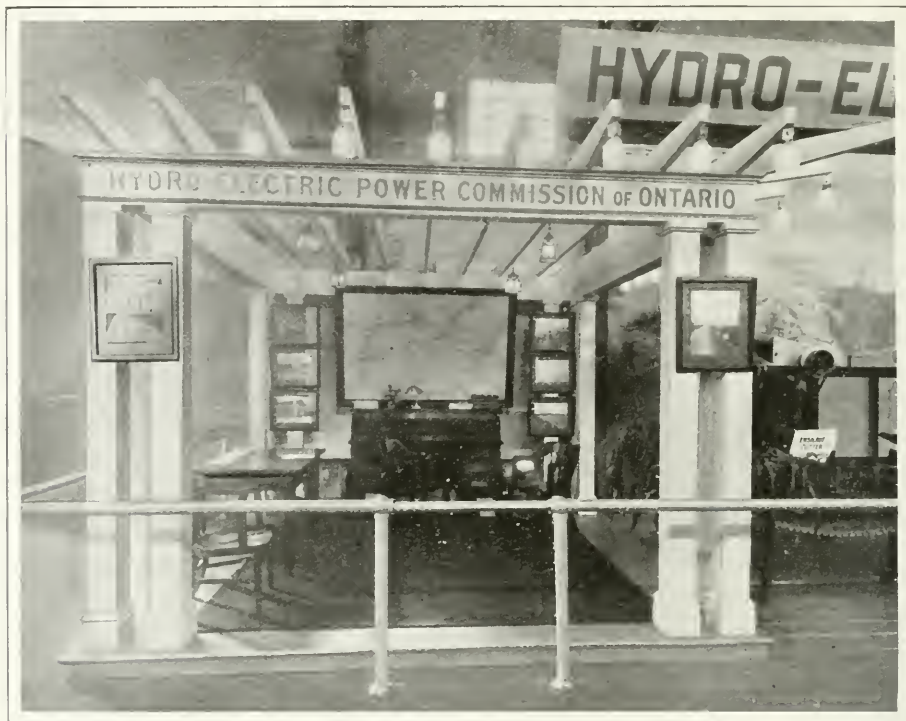
The office of the booth was furnished with office furniture, and photographs hung on the wall and columns. From here literature relative to the various appliances shown in the exhibit was distributed.



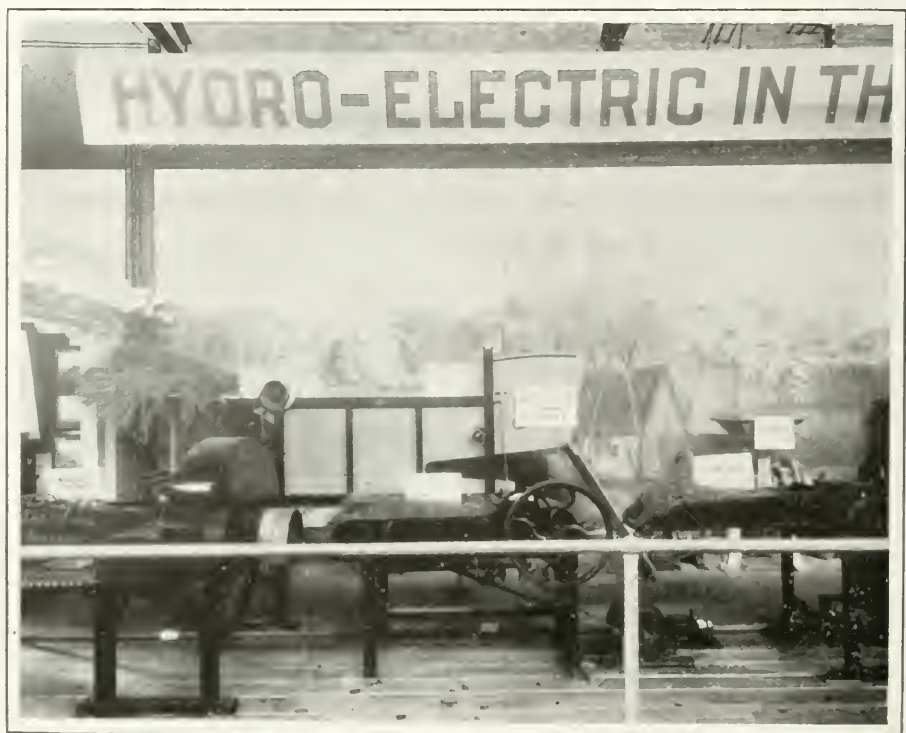
Canadian National Exhibition, Toronto



Canadian National Exhibition, Toronto



Canadian National Exhibition, Toronto



Canadian National Exhibition, Toronto

The farm demonstration consisted of a 50 bu. an hour thresher, two circular ensilage cutters, a cylindrical ensilage cutter, three plate grinders of various sizes, a pulper, a refrigerating outfit, a milking machine, a grindstone, two circular saws, an automatic rotary pump, an automatic centrifugal pump, an automatic plunger pump and a windmill pump. All of these machines were demonstrated in actual operation and driven by motors ranging from $\frac{1}{4}$ to 2 h.p.

A large canvas drop representing a generating station and a rural transmission line was hung on the wall as a background.

The cottage proper consisted of three rooms, arranged to represent a dairy, a kitchen and a dining room. The dairy contained two individual electric



Canadian National Exhibition, Toronto

motor driven cream separators, a combination dairy outfit driven by a single $\frac{1}{2}$ h.p. motor and consisting of a cream separator, barrel churn, and butter-worker. Needless to say, this part of the exhibit occasioned considerable interest. The machines were operated most of the time.

The model kitchen contained two types of motor driven washing machines, an electric range, an electric fireless cooker and a collection of electric flatirons, toasters, chafing dishes, immersion heaters, disc stoves, coffee percolators and tea samovars. The front part of the booth was provided with a counter and from here toast, coffee and tea prepared with the electric appliances were distributed by two demonstrators.



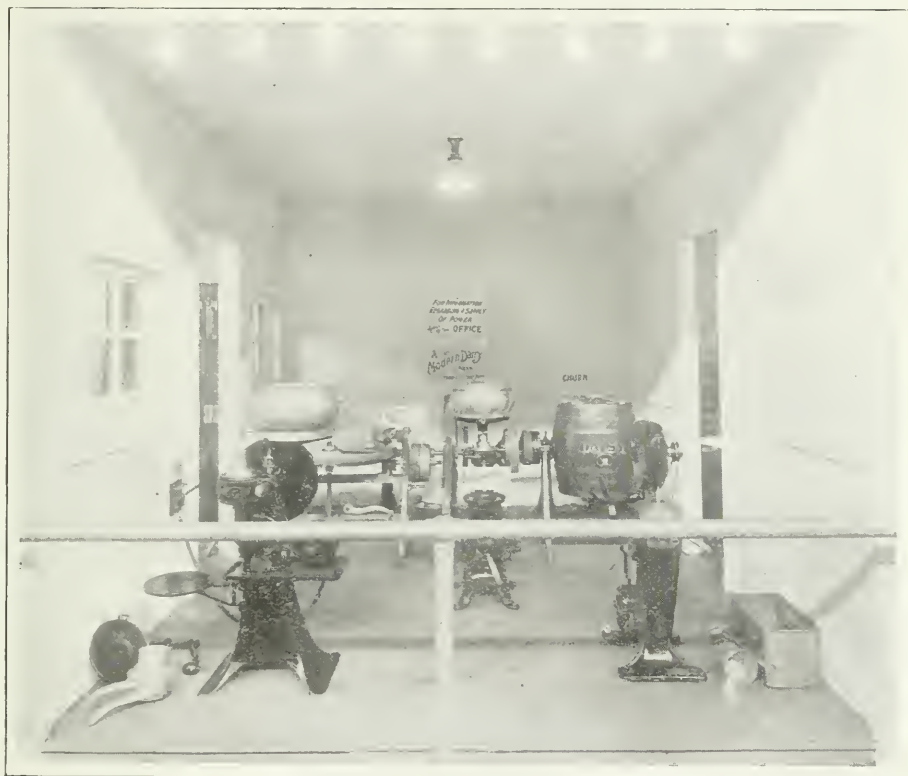
Canadian National Exhibition, Toronto



Canadian National Exhibition, Toronto

The dining room contained a complete set of dining room furniture and a collection of electrical appliances, consisting of a motor driven sewing machine, a number of vacuum cleaners, an ozonator, various types of air heaters, electric fans, bed warmers, etc.

From every standpoint the display was a success. The Commission was later awarded a gold medal for the exhibit. The immediate popularity which followed the opening of the display was naturally most gratifying and, for this reason, it was decided to exhibit at fairs in various parts of the Province, since it was assumed from comments that this display possessed an exceptionally high educational value.



Canadian National Exhibition, Toronto

Western Fair, London—September 10th to 14th, 1912

This fair was held Sept. 10th to 14th. It was decided to exhibit a collection of dairy apparatus, cooking utensils and small machinery in a space 60 ft. by 15 ft. secured for that purpose under the Grand Stand. The allotted space was divided into two sections.

The first section 15 ft. by 15 ft. in size was furnished as a dining room. The appliances displayed here consisted of an electric range, electric fireless cooker, coffee percolators, tea samovars, toasters of different types, electric disc stoves, chafing dishes, electric grill, electric flatirons, egg cookers, foot-warmers, luminous radiators, air heaters, motor-driven sewing machine, and a motor-driven washing machine. In another section cigar lighters and other small devices were shown.



Canadian National Exhibition, Toronto



Canadian National Exhibition, Toronto

A demonstrator was in attendance operating the electric range, fireless cooker, and different smaller devices. She also served toast, coffee, and simple dishes prepared by electricity to the interested spectators.

The second section of the booth was 45 ft. by 15 ft. in size. A large canvas drop representing a power line passing through a farming district was hung at the back and the section neatly draped with bunting.

In this section was displayed: A dairy outfit, consisting of a cream separator, a churn and a butter-worker driven by a $1\frac{1}{2}$ h.p. motor; a milking machine, driven by a 2 h.p. motor; a mechanical refrigerator, driven by a 1 h.p. motor, which, besides refrigerating all the food needed for a household, supplied 10 lb. of ice per day; a large automatic rotary pumping outfit, driven by $\frac{1}{2}$ h.p. motor, capacity



Western Fair, London

300 gal. per hr.; a small automatic plunger pumping outfit, driven by a $\frac{1}{8}$ h.p. motor, capacity 125 gal. per hr.; a windmill pump fitted with jack, run by $\frac{1}{2}$ h.p. motor; a cutting-box, run by 1 h.p. motor; a turnip pulper, run by $\frac{1}{2}$ h.p. motor; a food grinder run by 2 h.p. motor, and a circular saw, run by 2 h.p. motor.

The dining-room section was lighted by a four-lamp fixture in the centre of the ceiling, the large section by 500-watt tungsten lamps and concentrating reflectors installed inside and above the opening in front of the booth, so arranged that the light was directed on the appliances and did not strike the eyes of the spectators. Brackets with 150-watt tungsten lamps and radial wave reflectors were used to illuminate a large sign outside of the booth.

In another part of the grounds, the motor and transformer wagons, known as "Outfit No. 2," were shown operating a large threshing machine. Current was sup-



Western Fair, London

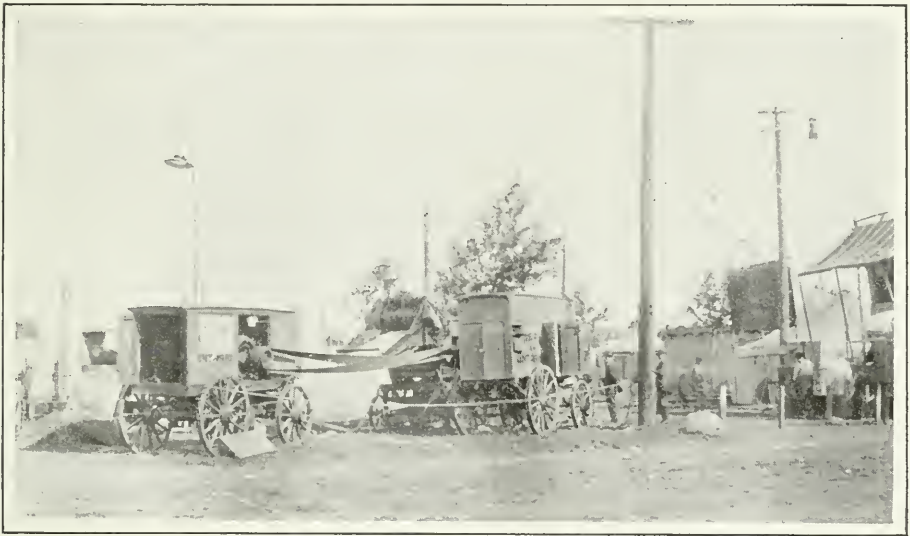


Western Fair, London

plied from the 2,200 volts mains within the grounds. The separator was driven at no load most of the time. A small German thresher, driven by a 5 h.p. motor was also shown in actual operation.

Two large banners reading: "HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO," "Portable Motor and Transformer Outfit for the Farm," were stretched across the roadway. This part of the exhibit occasioned a considerable interest and was surrounded by a large crowd most of the time. The small outfit, however, was the centre of the greatest attention, for a machine of this capacity costs very little and may therefore be purchased by the average farmer for individual use.

A great deal of interest was shown in both displays, so much so, in fact, that it kept the engineers of the Commission, as well as the representatives of the local Hydro-Electric Department, busy all day and until late at night answering all sorts



Threshing Outfit at Western Fair, London

of questions as to the possible uses of the different apparatus exhibited, and the manner in which power might be obtained in their respective localities.

Norwich Fair—September 16th and 17th, 1912

This fair was held on the 16th and 17th of September, immediately after the "Western Fair" at London. The domestic utensils and appliances were displayed on a raised platform inside the Fair Building, and consisted of a range, an electric fireless cooker, a motor-driven washing machine, vacuum cleaners, coffee percolators, electric soldering irons, fan motors, tea kettles, electric tea samovars, electric water heaters, griddle cake cookers, luminous radiators, chafing dishes, electric flat irons, electric curling irons, toasters, cigar lighters, an automatic electric pump and a cream separator.

A demonstrator was in attendance to operate the range and fireless cooker, as well as the other appliances, and explain the different uses and advantages to be derived from the use of electricity for cooking.

The farm machinery was installed in a tent outside and consisted of automatic pressure pumps, a jack for adapting the ordinary farm pump to an electric drive, a turnip pulper, a circular saw, a small thresher, and an electrically-operated milking machine. All of these were operated and attracted a great deal of attention.

Woodstock Fair—September 18th and 19th, 1912

Immediately after the Norwich Fair, the exhibit was moved to Woodstock for the 18th and 19th of September. Woodstock is the centre of an important agricultural section, and the Fall Fair is largely attended by farmers from the surrounding districts.

The display was made in a large marquee tent, and was similar to those at London and Norwich. At one end of the tent a demonstrator showed the various ways that electricity might be used in the home for cooking, heating, etc. Meals were cooked on the electric range and served to visitors. On either side of the tent churns, cream separators, a milking machine, grinders, and pumps were exhibited, operated by electric power. The small German grain separator, which had attracted so much attention at other fairs, was shown outside belted to a 3-phase 5 h.p. motor, and a load of oats was threshed during the afternoon. The cylinder of the separator was run at about 1,100 revolutions per minute, and good clean grain was obtained at the rate of 30 to 40 bushels per hour.

Weston Fair—September 28th, 1912

A demonstration was given at Weston on Sept. 28th, and in the afternoon a number of cows were milked by an electrically driven milking machine. Farmers present were well satisfied with results obtained by the machine.

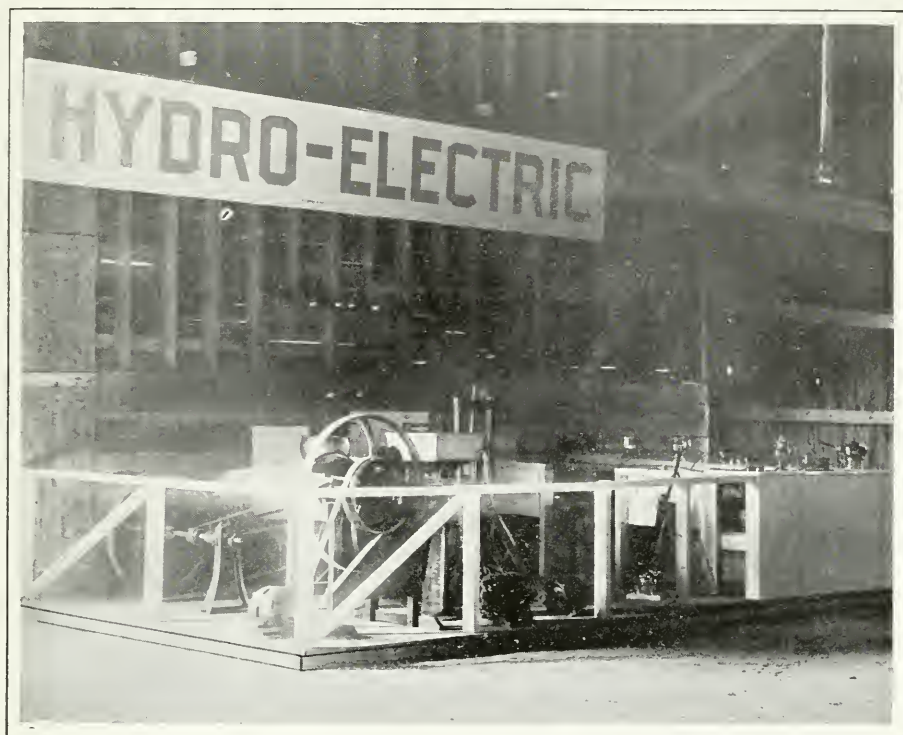
Tillsonburg Fair—October 1st and 2nd, 1912

The town of Tillsonburg held its annual Fair on October 1 and 2nd. As this is the centre of one of the best dairy sections of Ontario, the Fair was largely attended by representative dairymen, many of whom came for the express purpose of seeing the Hydro-Electric demonstration.

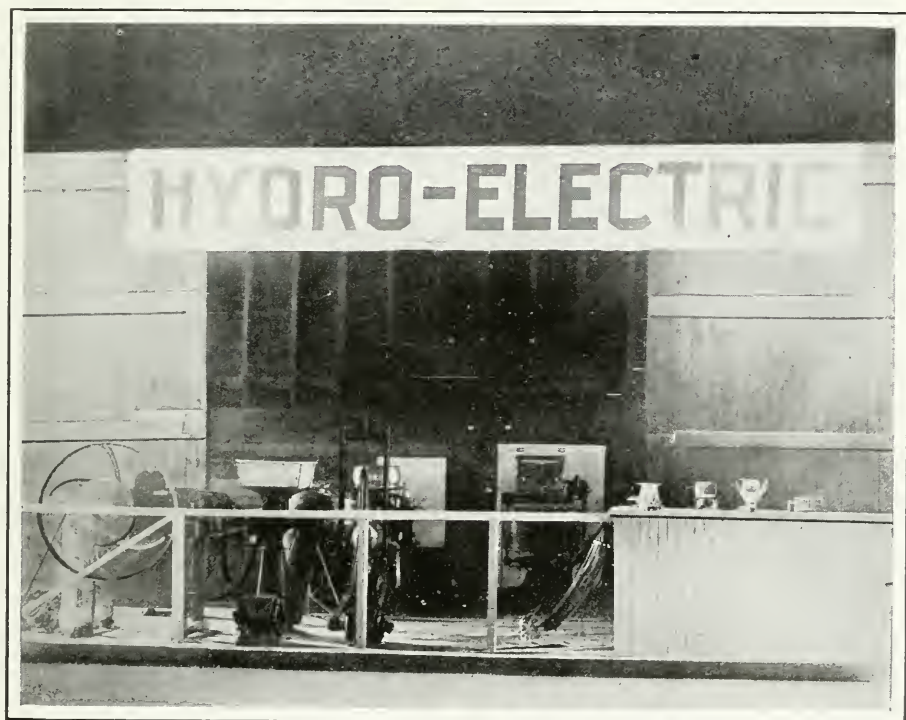
The same plan as at previous exhibitions was adopted here, the space being divided into three sections. A model electrical dairy with cream separators, butter-workers and a churn, all operated by $\frac{1}{2}$ h.p. motor, were shown in the first section. The third section held the larger farm machinery, such as grinders, circular saws driven by 2 h.p. motors and various types of pumps taking from $1\frac{1}{8}$ to $1\frac{1}{2}$ h.p.

Between these two sections, a model electric kitchen was built and equipped with all the latest electrical cooking and heating appliances. A demonstrator showed crowds of interested visitors the many advantages of the electrical stove, coffee percolators, toaster, etc. It was evident that to many of the women visitors the idea of electrical cooking was something entirely new.

The milking machine in the dairy section attracted the attention of many. The pumps and food grinder in the third section were also kept running, the latter operated by a 2 h.p. motor, grinding four or five bushels of oats an hour. Many questions were asked as to the method by which the farmers could secure the power in North and South Norwich and other nearby townships. Full information was furnished and petition forms and pamphlets distributed.



Markham Fair



Markham Fair

Markham Fair—September 30th to October 3rd, 1912

A special invitation tendered by the Executive Committee of the Markham Fair Association induced the Commission to exhibit at Markham Fair. Although a demonstration had previously been considered, it was finally decided that it would be impossible to provide a comprehensive display, for the town was supplied with 133 cycle, two-phase power, and no 133 cycle motors were available.

A special booth, consisting of a platform, railing, and demonstration table, was erected and a complete dairy equipment, a straw cutter, grinder, pump, washing machine, vacuum cleaner, and an assortment of electrically operated domestic utensils shown. The uses of the latter were demonstrated, as well as those of the washing machine and vacuum cleaner, for which the 133 cycle motors were fortunately secured.

The demonstration proved exceedingly popular and occasioned an unusual amount of interest, although the exhibit was not as extensive as many of the others. The booth was erected in the skating rink, the only place available for the purpose at the time. A competent demonstrator was in charge, preparing and distributing tea, coffee, and toast.

Dundas Exhibition—October 31st to November 2nd, 1912

A demonstration was arranged for Dundas on the evenings of October 31st, November 1st, and the afternoon and evening of the 2d. A new store was secured and a suitable collection of apparatus was loaned the town for an exhibit similar to that at Norwich. The attendance was exceedingly good, people being very much interested. A demonstrator was on hand, showing the uses of each piece, besides serving tea, coffee and toast, prepared by electricity. All of the farm machinery was kept running while the exhibit was open. The farmers, especially the older men, were much interested in the simplicity of electric drives and expressed their belief that electric power would prove to be the solution to the labor problem.

Women's Institute Convention—November 14th and 15th, 1912

Arrangements were made in November for an exhibit at the annual convention of the Women's Institute at Guild Hall in the Young Women's Christian Association, Toronto.

Electrical appliances, consisting of dairy machinery, vacuum cleaners, washing and sewing machines, electric fans, heating appliances, etc., were exhibited in operation between the sessions of the Convention.

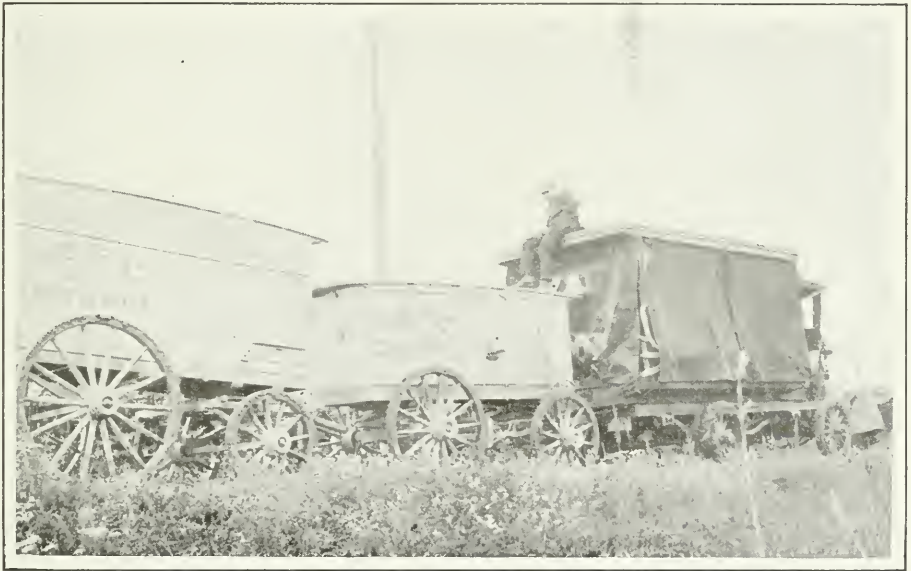
Three demonstrators, who, besides showing the uses of the apparatus, distributed a large quantity of literature, were in attendance. On the whole, the demonstration was perhaps one of the most popular of the season. The advantages of electricity in the house and the practicability of various electrically operated appliances were discussed at length at the booth and from the platform.

It might be interesting to add that, since this exhibit, the Department of Agriculture has received numerous inquiries regarding various electrically operated household appliances, and that in many sections of the Institute special committees have been appointed to secure additional information.

Demonstrations of Threshing and Silo Filling

The successful application on the European Continent of electric drive to various agricultural machines, particularly threshers and ensilage cutters, led the Commission, late in the summer of 1912, to construct two outfits similar to those used on the continent but embodying a number of minor changes to adapt them to Canadian conditions. Each outfit was composed of a covered motor wagon and a covered transformer wagon.

The wagons proper consisted of "Bain" wagon gears equipped with wagon poles and whipple-trees. The transformer wagons were provided with common wagon springs and the motor wagons with bolster springs. Experience in the field



Transformer and Motor Wagons Hauled by 50-h.p. Gasoline Truck

showed that wagons with no springs at all would have been preferable, but at the time the wagons were designed it was thought necessary to provide for the jar incident to the movement of the wagons over the country roads. All of the wagons were provided with hand brakes. Each unit weighed approximately two tons, fully equipped. The transformer wagon bodies were, roughly, 8 ft. long, 3½ ft. wide, and 5 ft. high. The gears were fitted with front wheels 30 in. in diameter and rear wheels 42 in. in diameter.

The motor wagons were slightly smaller than the transformer wagons, although they weighed, approximately, the same. The gears were provided with front wheels 24 in. in diameter and rear wheels 30 in. in diameter. The bodies were approximately 7 ft. long, 3.25 ft. wide and 4 ft. high.

The wagon frames were constructed of channel and angle iron firmly bolted together with corner and angle plates. Wood sheathing covered with canvas, the latter painted to make it waterproof, was built around the steel structure. Although these steel frames were not necessary, it was considered advisable to

employ steel rather than wood so that the transformers and other equipment might be bolted directly to the frames. Here, again, experience warranted this procedure, for one of the transformer wagons, while west of London, skidded on a muddy road and slid down a steep bank, turning completely over before it reached the bottom. The gear and body of the wagon separated, and after placing the body on skids and hauling it to a railway crane belonging to the M.C.R. it was replaced on the running gear.

Each transformer wagon was equipped with 2-15 kw. 2,200/220/110 volt 25 cycle oil-cooled transformers, connected delta to delta. Provision was made at the time the wagons were designed for three of these transformers, but, as there was no apparent need for a third, only two were installed in each wagon.

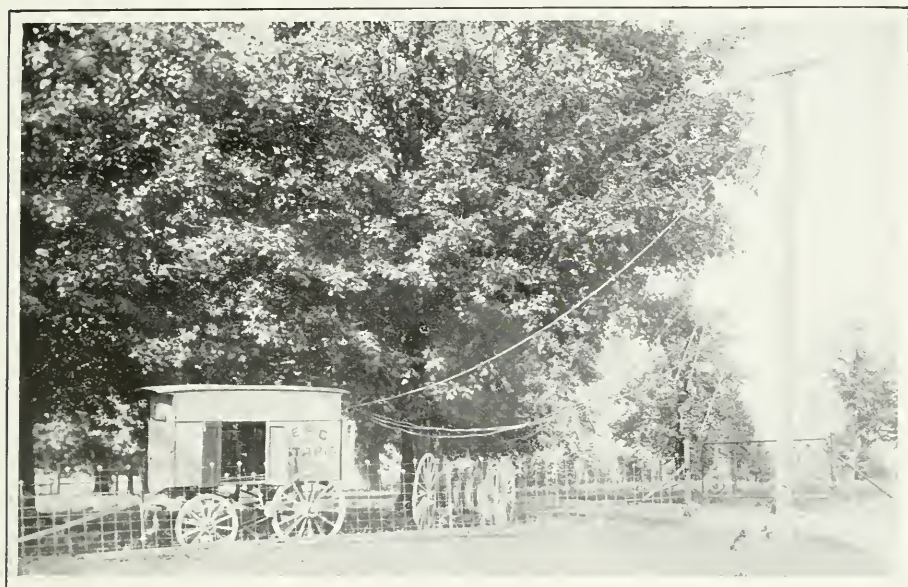


Motor Wagon Containing 25 h.p. Motor and Auto Starter

The transformers were provided with 110 and 220 volt taps on the low tension side and protected on the high tension side by automatic oil circuit breakers. The complete equipment of the wagons proper was protected against atmospheric discharge by "Garton Daniels" lightning arresters grounded through the wagon frames, a short piece of cable and an iron pin which was driven into the ground when the equipment was in operation.

The energy consumption was measured on the low tension of the transformers, on both the 110 and 220 volt circuits, with suitable integrating wattmeters permanently installed in the wagon.

The high tension windings of the transformers were connected directly to copper busses supported by single petticoat porcelain insulators mounted on a special framework in the upper part of the wagon box. These connections were made with "Dessert" covered connectors. The busses were directly connected to a



Transformer Wagon Connected to 2,200 Volt Transmission Line



Transformer Wagon and Cable Reel

plugging box mounted on the side of the wagon body into which the three leads from the 2200 volt line were connected. A second plugging box with six outlets was also mounted on the same side of the wagon and directly connected to the 110 and 220 volt taps of the transformers. The 220 and 110 volt circuits for the motor wagon, truck and other demonstrating apparatus were connected at this point. Connection to the 2200 volt line conductors was made with treated wooden poles 16 ft. long and 11½ in. diameter, topped with special spring hooks. These were hung directly upon the line. Generally, the line circuit was opened before this connection was made, but, in some cases, this was impossible and the hooks were connected to the line without first opening the circuit, since the wooden poles, even in wet weather, provided insulation.

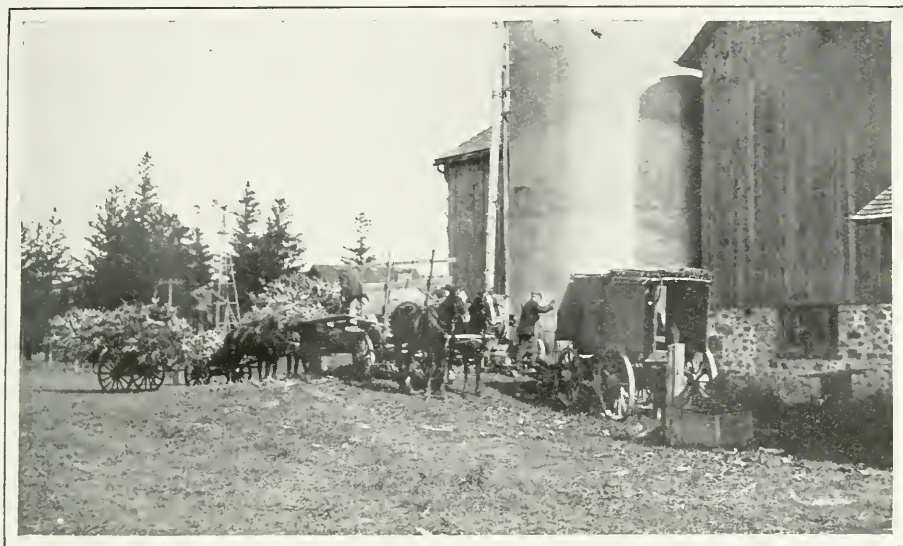
The transformer wagons were also supplied with multiple telephone units which were connected to the line in a manner similar to the transformers. This telephone equipment was mounted on the door of the wagon in an accessible position.



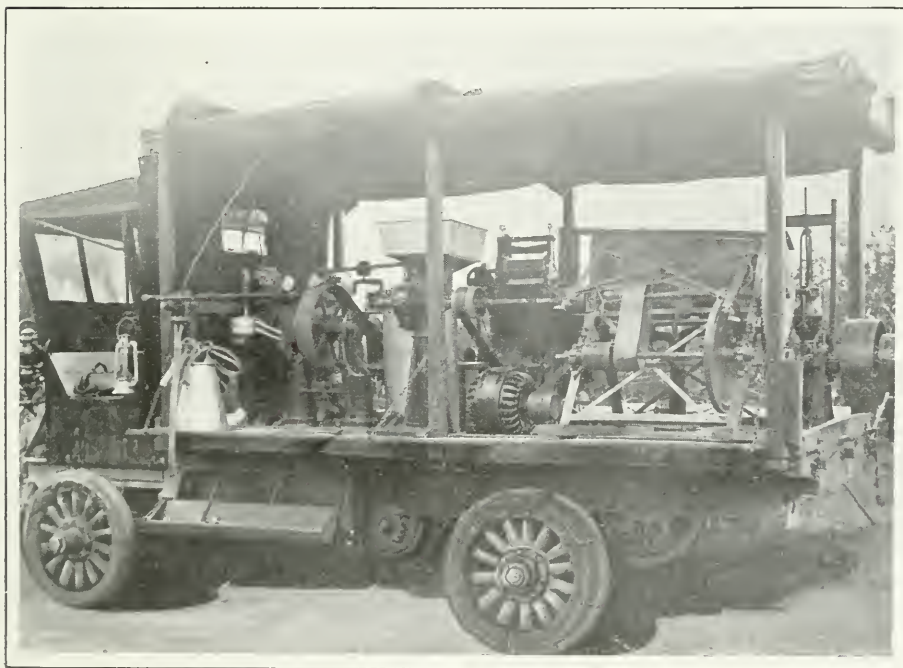
En route for the Next Farm

and, with it, the wagon operator was able to communicate directly with the substation, or, when necessary, with the head office.

The motor wagons were each provided with a 25 h.p., three phase, 220 volt induction motor, connected and controlled directly by oil insulated auto-starters. There were no knife switches on the motor wagon, and the only way by which the circuit could be opened at this point was by the manual operation of the starter, by an excess amount of current tripping the overload relay or by the no voltage release on the auto starter. The motor wagon carried in the rear compartment an iron cable reel capable of holding 1500 ft. of flexible cable, which was used to connect the motor and transformer wagons by means of a special type of plug which was inserted in the receptacles and rotated 90 deg. to insure proper contact. This cable when alive was supported from the ground every 15 or 20 ft. by wooden tripods. The motor wagons were also supplied with a complete repair kit, as well as compartments for miscellaneous supplies. Portable meters were carried, and



Silo Filling with Electric Motor, Mr. S. J. Prouse's Farm, Dereham Township



3 Ton, 50-h.p. Demonstration Motor Truck

various sizes of pulleys for the motor were included in the equipment to provide proper driving speeds for the different types of threshing machines and ensilage cutters. Every possible precaution was taken to protect the operator while the outfit was in operation, provision being made so that the doors of both the motor and transformer wagons might be closed when the equipment was running.



Method of Supporting Cable between Transformer and Motor Wagons

In addition to the outfits just mentioned, a three ton 50 h.p. gasoline motor truck was purchased. The platform of this truck was 5 ft. by 13 ft. in size, and protected with a canvas top and side curtains. It was also equipped with folding running boards, which during demonstrations were used as platforms from which the operators might explain the operation of the outfit. A 15 ft. jack-shaft belt con-



Transformer Wagon Connected to Transmission Line



Open'ng Demonstration at Mr. Might's Farm, Toronto Township

needed to a 3 h.p. 110 volt, three phase induction motor was mounted on this platform and employed to operate a mechanical milking machine, a steel frame circular saw, a washing machine, a cream separator, a churn, a butter-worker, and a wind-mill pump. A 150 gal. automatic rotary pump equipped with $\frac{1}{4}$ h.p. motor and a small electric stove were included in this equipment. The truck also carried a large tent, a board floor, a demonstrating table, and a collection of heating devices packed in special carrying cases. During the demonstrations last Fall this truck accompanied the motor and transformer wagon known as "Outfit No. 1." Generally, the motor and transformer wagons of the outfit were hauled from place to



Rural Demonstration, St. Thomas

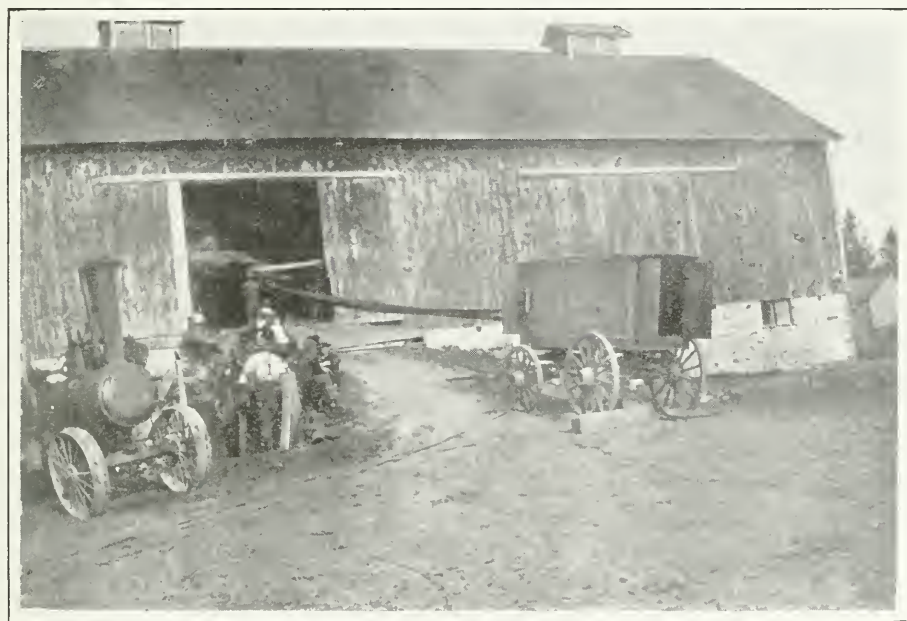
place with horses, but in one or two instances when horses were not available they were hauled by the truck.

The first demonstration with these outfits was held at Mr. Might's farm in Toronto township, on August 28th, in the presence of Hon. Adam Beck, Hon. J. S. Duff, Minister of Agriculture, other Members of the Cabinet and Officials of Toronto township.

The motor wagon was employed to drive a grain separator. Different farm machines on the truck were also operated. During the demonstration an expert demonstrator served toast, coffee and tea, prepared on electric appliances, and demonstrated the uses of the vacuum cleaner, washing machine, bed-warmer, etc.



Milking Cow with Electrically Driven Milking Machine



Engine Replaced by Electric Motor for Threshing

Demonstrations were then made at the following places on the dates named:

- Mr. O'Leary's farm, in Toronto Township.—Aug. 30th.
 Mr. Sipes' farm, in North Dumfries Township, near Blair.—Sept. 4th.
 Mr. Shaefer's farm, in North Dumfries Township, near Berlin.—Sept. 6th.
 Mr. Knipfel's farm, in Wilmot Township, near Petersburg.—Sept. 9-12.
 Mr. Christian Hostetter's farm, in Wilmot Township.—Sept. 11th.
 Wilmot Fair, at New Hamburg.—Sept. 13th.
 Mr. Philip Kenney's farm, in Hibbert Township, near Dublin.—Sept. 16-17.
 Stratford Fair.—Sept. 19-20.
 St. Mary's Fair.—Sept. 24-25.
 London Sanitarium.—Sept. 30, Oct. 1.
 Mr. Alex. Anderson's farm, in S. Yarmouth Township, near St. Thomas.—Oct. 5-8.
 Mr. McKenzie's farm, in S. Yarmouth Township, near St. Thomas.—Oct. 11, 12, 14.



5-h p. Motor Installation for Silo Filling

After exhibiting "Outfit No. 2" at London Fair, it was employed at the following places for the purpose of demonstrating the superiority of the electric motor over the steam, gasoline, and oil engines now in general use for threshing, silo-filling, and other work on the farm. During these demonstrations data was collected which appears later in this report.

- Mr. John Prouse's farm, in W. Oxford Township, near Ingersoll.—Sept. 14, 16, 17; Oct. 5, 7, 8.
 Mr. Wm. Bowman's farm, in Dereham Township, near Ingersoll.—Sept. 17-18; Oct. 9-12.
 Mr. Geo. Raymond's farm, in N. Oxford, near Ingersoll.—Sept. 19-20.
 Mr. Jas. Pordon's farm, in N. Oxford Township, near Beachville.—Sept. 21-23.
 Mr. John Karn's farm, in W. Oxford Township, near Woodstock.—Sept. 24-26.
 Mr. Jas. Innes' farm, in W. Oxford Township, near Woodstock.—Oct. 1-3; Sept. 27, 28, 30.

Mr. Michael Furlong's farm, in N. Norwich Township, near Norwich.—Oct. 21-23.
 Mr. S. J. Prouse's farm, in Dereham Township, near Ingersoll.—Oct. 14-16.
 Mr. John Leigh's farm, in W. Oxford Township, near Ingersoll.—Oct. 17, 18.
 Mr. Chas. Fletcher's farm, in N. Norwich Township, near Norwich.—Oct. 24-26;
 Nov. 18-20.
 Mr. Barney Smith's farm, in S. Norwich, near Tillsonburg.—Oct. 30, 31; Nov. 1-8.

Following is a list of the operations performed at each place, and the field data secured:

John Prouse, West Oxford

(Sept. 14, 16, 17; Oct. 5-8.)

Threshing—Wheat.

Bushels of Wheat	265
Total time (deductions made for delays).....	4 hr. 16 min.
Kw.-hr.	87
Average h.p.	27.2
Bushels per hr.	62.2
Bushels per kw.-hr.	3.04

Threshing—Oats.

Bushels of Oats	1,179
Total time (deductions made for delays).....	11 hr. 15 min.
Kw.-hr.	165
Average h.p.	19.6
Bushels per hr.	104.8
Bushels per kw.-hr.	7.14

Silo Filling.

Size of Silo	33 ft. by 29 ft. by 13½ ft.
Quantity put in	270 tons
Total time (deductions made for delays).....	18 hr. 35 min.
Kw.-hr.	367
Average h.p.	24.5
Tons per hr.	14.5
Lb. per kw.-hr.	1,471

Wm. Bowman, Jr., Dereham

(Sept. 17, 18; Oct. 9-11.)

Threshing—Oats.

Bushels of Oats	1,190
Total time (deductions made for delays).....	8 hr. 20 min.
Kw.-hr.	141
Average h.p.	22.2
Bushels per hr.	143
Bushels per kw.-hr.	7.5

Silo Filling.

Size of Silo	15 ft. by 40 ft.
Type of box used	Blizzard No. 3
Quantity put in	175 tons
Total time (deductions made for delays).....	20 hr. 3 min.
Kw.-hr.	336
Average h.p.	22.4
Tons per hr.	8.75
Lb. per kw.-hr.	1,041

Geo. Raymond, S. Oxford

(Sept. 19-20.)

Threshing—Oats.

Bushels of Oats	1,140
Total time (deductions made for delays).....	6 hr. 52 min.
Kw.-hr.	203
Average h.p.	24.5
Bushels per hr.	162
Bushels per kw.-hr.	5.36

Jas. Fordon, N. Oxford

(Sept. 21-23.)

Silo Filling.

Size of Silo (filled, 32')	14 ft. by 40 ft.
Type of cutting box	Blizzard No. 3
Quantity put in	125 tons
Total time (deductions made for delays)	10 hr. 15 min.
Kw.-hr.	1.97
Average h.p.	25.5
Tons per hr.	12.4
Lb. per kw.-hr.	1,268

John Karn, W. Oxford

(Sept. 24-26.)

Threshing—Oats.

Bushels of Oats	1,450
Time running (deductions made for delays)	7 hr. 35 min.
Kw.-hr.	198
Average h.p.	24.8
Bushels per hr.	191
Bushels per kw.-hr.	7.8

Jas. Innes, W. Oxford

(Sept. 24, 26-28; Oct. 1-3.)

Threshing—Wheat.

Bushels of Wheat	476
Time running (deductions made for delays)	5 hr. 5 min.
Kw.-hr.	92½
Average h.p.	24.3
Bushels per hr.	93.3
Bushels per kw.-hr.	5.15

Threshing—Oats.

Bushels of Oats	2,180
Time running (deductions made for delays)	13 hr. 35 min.
Kw.-hr.	325.5
Average h.p.	24.4
Bushels per hr.	165
Bushels per kw.-hr.	6.69

Silo Filling.

Size of Silo (filled, 37½')	16 ft. by 45 ft.
Quantity put in	152½ tons
Total time (deductions made for delays)	16 hr. 40 min.
Kw.-hr.	275
Average h.p.	22
Tons per hr.	9.51
Lb. per kw.-hr.	1,109

S. J. Prouse, Dereham

(Oct. 14-16.)

Silo Filling.

Size of Silo	16 ft. by 40 ft.
Type of box used	Blizzard No. 3
Quantity put in	189 tons
Total time (deductions made for delays)	20 hr. 15 min.
Kw.-hr.	392
Average h.p.	19.6
Tons per hr.	8.4
Lb. per kw.-hr.	939

John Leigh, West Oxford

(Oct. 17, 18.)

Silo Filling.

Size of Silo	14 ft. by 35 ft.
Quantity put in	108 tons
Total time (deductions made for delays).....	8 hr. 50 min.
Kw.-hr.	215
Average h.p.	25.9
Tons per hr.	9.73
Lb. per kw.-hr.	1,004

Michael Furlong, North Norwich

(Oct. 21-23.)

Silo Filling.

Size of Silo	14 ft. by 40 ft.
Quantity put in	154 tons
Total time (deductions made for delays).....	12 hr. 45 min.
Kw.-hr.	183
Average h.p.	21.5
Tons per hr.	7.5
Lb. per kw.-hr.	1.683

Chas. Fletcher, North Norwich

(Oct. 26.)

Silo Filling.

Size of Silo (not filled)	16 ft. by 37 ft.
Quantity put in	146 tons
Total time (deductions made for delays).....	7 hr. 15 min.
Kw.-hr.	129
Average h.p.	23.7
Tons per hr.	20.1
Lb. per kw.-hr.	2,262

Sawing Wood.

Buzz Saw	30 in. diam.
Speed	1,380 r.p.m.
Average power	10.3 h.p.

Barney Smith, South Norwich

(Oct. 31-Nov. 5.)

Silo Filling.

Size of Silo	14 ft. by 40 ft.
Quantity put in	154 tons
Total time (deductions made for delays).....	11 hr. 15 min.
Kw.-hr.	136
Average h.p.	16.2
Tons per hr.	12.7
Lb. per kw.-hr.	2,264



Demonstration of Silo Filling



Transformer and Motor Wagons employed for Silo Filling

The tables following give the data in detail, and also include a comparison on the costs of electric and steam drive.

The basis used for computing the cost of electricity was the cost to Toronto Township, \$2.00 per month service charge and \$36.00 per h.p. per year, assuming a load factor of 20 per cent., including threshing and silo filling. This works out to an average cost of 5c. per kw-hr., and this figure was used. The total hours actual running time assumed as 500 for the year, the average of 24 h.p. is taken for in the time noted with 2 electrical h.p.

The cost of separator for threshing, cutting box for silo filling and of labor, except attendance at the motor or engine, were ignored as they are the same for both steam and electric, comparison of the cost of power only being made.

Threshing Outfit

Electric, 25 h.p.

Capital	\$1,200 00	
Life assumed as 20 years.		
Money borrowed for 15 years.		
Interest, 6 per cent.	72 00	
Depreciation (20 years), 3.36 per cent.	40 32	
Sinking Fund (15 years), 4.99 per cent.	59 88	
Maintenance, 2.5 per cent.	30 00	
Insurance on 75 per cent. valuation at 1½ per cent.	13 50	
Total Fixed Charges		\$215 90
Attendance for 500 hours, part of time	\$25 00	
Current by syndicate plan	206 60	
Haulage done by farmer—Ignored.		
Total Operating Costs		\$231 60
Total Fixed Charges and Operating Costs		\$447 50

Steam, 25 h.p.

Capital	\$1,800 00	
Life assumed as 10 years.		
Money borrowed for 15 years.		
Interest, 6 per cent.	108 00	
Depreciation (10 years), 8.33 per cent.	149 44	
Sinking Fund (15 years), 4.99 per cent.	89 82	
Maintenance, 3 per cent.	54 00	
Insurance on 75 per cent. valuation at 1½ per cent.	20 25	
Total Fixed Charges		\$421 51
Attendance 500 hours, half time.	\$100 00	
Fuel and water furnished by farmer. Cost of fuel and hauling of water estimated (coal at \$4.50 per ton)	187 00	
Fuel by farmer for moving—Ignored.		
Total Operating Costs		\$287 00
Total Fixed Charges and Operating Costs		\$708 51

Table of Data Collected.

THRESHING.

Table No. 1.—Wheat.

Name of Farmer.	Township.	Date.	Condition of grain.	Time at place in days.	Time running—time of delays deducted.	Total in bush.	Total kw-hr.	Bush. per hour.	Bush. per kw-hr.	Kw-hr. per bush.	Average demand in h.p.	\$		\$		Savings per bush. by using electric drive.	Separator.	Notes.
												Total.	Per bush.	Total.	Per bush.			
John Prouse	W. Oxford.	7 14 7 16	Good .	3	4 11—16 M	265	87	62.2	3.04	.32	27.2	4.35	.0164	6.77	.0256	.0092	Sawyer-Massey Peerless	Straw not cut
Jas. Innes	"	9 26 27-28 10 1 part time	Good .	14	5 11—5 M	476	92.5	93.3	5.15	.194	24.3	4.63	.0099	7.20	.0154	.0055	McCloskey ..	Straw not cut

Table No. 2.—Oats.

John Proutse	W. Oxford	7 16 7 17	Fair but	1 1/2	11 11—15 M	1,179	165	104.8	7.14	.140	19.6	8.25	.0070	12.84	.0109	.0039	Sawyer-Massey Peerless	Straw not cut
Wm. Bowman, jr. Dereham .		7 17 7 18	Wet and tough	1 1/2	8 11—20 M	1,190	141	143	7.50	.103	22.2	7.05	.0059	10.97	.0092	.0033	"	"
J. D. Karn	W. Oxford	7 24 7 26	Fair ..	1 1/2	7 11—35 M	1,450	198	191	7.80	.136	24.8	9.90	.0068	15.40	.0106	.0038	McCloskey.	Straw not cut
Geo. Raymond ..	N. Oxford.	7 19 7 20	Fair ..	2	6 11—52 M	1,140	203	162	5.36	.178	24.5	10.15	.0089	15.79	.0138	.0049	Geo. White & Sons.	Straw cut.
Jas. Innes	W. Oxford	7 27 7 28 10 1 part time	Good but tough	2 1/2	13 11—35 M	2,180	325.5	165	6.69	.150	24.4	16.28	.0074	25.32	.0117	.0043	McCloskey.	Straw not cut

Table No. 3.— Hungarian Oats.

M. Furlong	N. Norwich	11 27		2	5 11—45 M	397	93.	69	4.27	.255	22.8	4.65	.0117	7.24	.0183	.0066		Straw not cut
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SILO-FILLING.

Table No. 4.

Name of Farmer.	Township.	Date.	Size of Silo Ft.	Capacity in cu. ft.	Amount cut and elevated— tons.	Time at place— in hours.	Time running. Time of delays deducted.	Total Kw-hr.	Tons per hour.	Kw-hr. per ton.	Pounds per Kw-hr.	Average demand H.P.	Electric cost.		Steam cost.		Savings per ton by using elec. drive.	Name of Cutting Box.	R.P.M.	Notes.
													Tot.	Per ton.	Tot.	Per ton.				
J. J. Fordon	N. Oxford.	7 21	14 x 40	6157.6	125 (*)	2	10H - 15M	197 12.4	1.57	1268	25.5	9.85	.0786	15.32	1228	\$.0442	Blizzard No. 3.	944	Very green.	
J. J. Innes	"	7 23	16 x 45	9047.7	152½ (+)	2½	16H - 14M	275 9.51	1.75	1169	22.	13.75	.0902	21.40	1410	.0498	C. Wilkinson.	1000	Fairweather.	
J. J. Prouse	"	10 1	33 x 29	12917.5	270	2½	18H - 35M	367 14.5	1.36	1471	24.5	18.35	.0680	28.56	1058	.0378	Blizzard No. 3.	944	Silo inside barn, trouble with belt.	
		2-3	x 13½																	
		7 8	oblig.																	
W. Bowman, Jr.	Dereham.	10 9	15 x 40	7068.4	175	3½	20H - 3M	336 8.75	1.92	1041	22.4	16.80	.0960	26.14	1495	.0535	"	"	944	Rainy weather.
		10																		
S. J. Prouse ...	"	11-12																		
		10 14	16 x 40	8042.4	189	2	20H - 15M	392 8.4	2.35	939	19.6	19.60	.1037	30.50	1615	.0578	"	"	944	
J. J. Leigh	W. Oxford.	15-16																		
		10 17	14 x 35	5388.	108	2	11H - 05M	215 9.73	1.90	1004	25.9	10.75	.0995	16.73	1549	.0554	"	"	944	
		18																		
M. Furlong	N. Norwich	Oct.	14 x 40	6157.6	154	2	12H - 45M	183 7.5	1.17	1683	21.5	9.15	.0593	14.24	9925	.0332	"	"	944	
		21-23																		
C. Fletcher ...	"	Oct.	16 x 37	7439.6	146	1	7H - 15M	129 20.1	1.13	2262	23.7	6.45	.0441	10.04	9689	.0248	Wilkinson.	790	Rainy weather. Silo not filled.	
		26																		
B. Smith	S. Norwich	Oct. 31	14 x 40	6157.6	154	2	11H - 15M	136 12.7	1.13	2264	16.2	6.80	.0440	10.60	9688	.0248	"	"	790	Another Silo partly filled.
		Nov. 5																		

Weight of ensilage taken at 30 to 50 lbs. per cu. ft. according to condition.

Silos all round except in the one case above referred to as oblong.

(*) Filled 32 ft.

(+) Filled 37½ ft.

Demonstration Farms

In addition to the above work the Commission has in operation a number of farms completely equipped with electric power. In these places the recommendations of the Commission have been closely followed and very satisfactory results have been obtained. All these farmers have brought their own motors for operation in the house and barns, and have contracted with the Commission for 2 h.p. Following is a list of the names and locations of these farmers:—

Geo. Raymond,	Concession 3,	North Oxford
Alex. Anderson,	"	6, South Yarmouth
R. A. Penhale }	"	9, North Yarmouth
B. E. Colhonn }		
J. W. Innes }	"	2, West Oxford
J. D. Karn }		
K. C. Karn }		

Mr. Raymond's farm was the first equipped, a 3-phase line being built 4/5 of a mile from the 2,200 volt line on Pemberton Street, Ingersoll, via the 13,200 volt poles and some poles which had to be set to this farm. For the purpose of getting complete records, a graphic recording watt meter, an excess demand time meter and watt-hr. meters have been installed.

The electrical equipment consists of

Lighting

House—19 lamps on 17 switches and two plugs for heaters.

Barn—20 lamps on 4 switches.

Hen-house—1 lamp on a switch.

Drive-shed—2 lamps on a switch.

Milk-house—1 lamp on a switch.

Lamps at the gate and on the flag-pole on a switch in the house.

On a corner of the drive-shed for lighting the farm yard, 1 lamp on a switch.

Heating

Toaster.

Electric smoothing iron.

Air heater.

Power

1 2-h.p., 25 cycle, 3-phase, 110-volt motor, mounted on a frame with handles.

The total connected load is 5,715 watts or 7.56 h.p. Most of the lamps are tungsten.

Switches have been installed at three locations for the motor:

No. 1.—In the barn where, when the motor is set, by changing the belts, the following pieces can be driven: a three-unit milking machine, plate grinder, cutting-box, fanning-mill, turnip-pulper, emery-wheel and grindstone.

No. 2.—On the end of the drive-shed for the drag-saw and the buzz-saw.

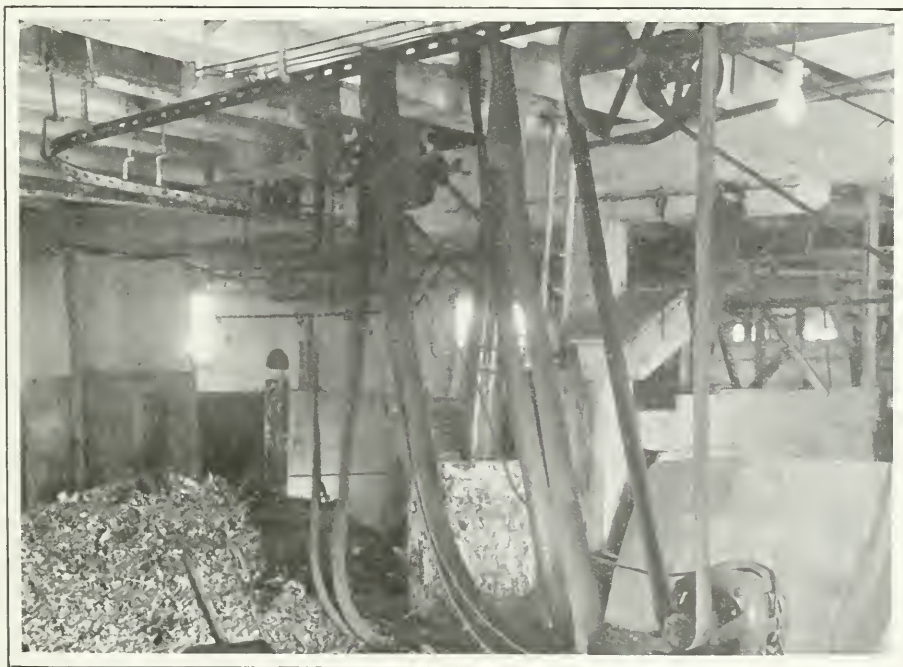
No. 3.—In the woodshed for the washing machine.

The motor is moved from place to place on a two-wheeled truck, and is shown in one of the cuts in this report.

The following chart shows a typical load curve at Mr. Raymond's farm near Ingersoll, illustrating how 2 h.p. is used more or less steadily by Mr. Raymond during the day and the night.



Demonstration of Wood Sawing



Arrangement of 2-h.p. Motor at Mr. Raymond's Farm, Five Machines can be Driven Without Moving Motor



Portable Motor, Mr. Raymond's Farm



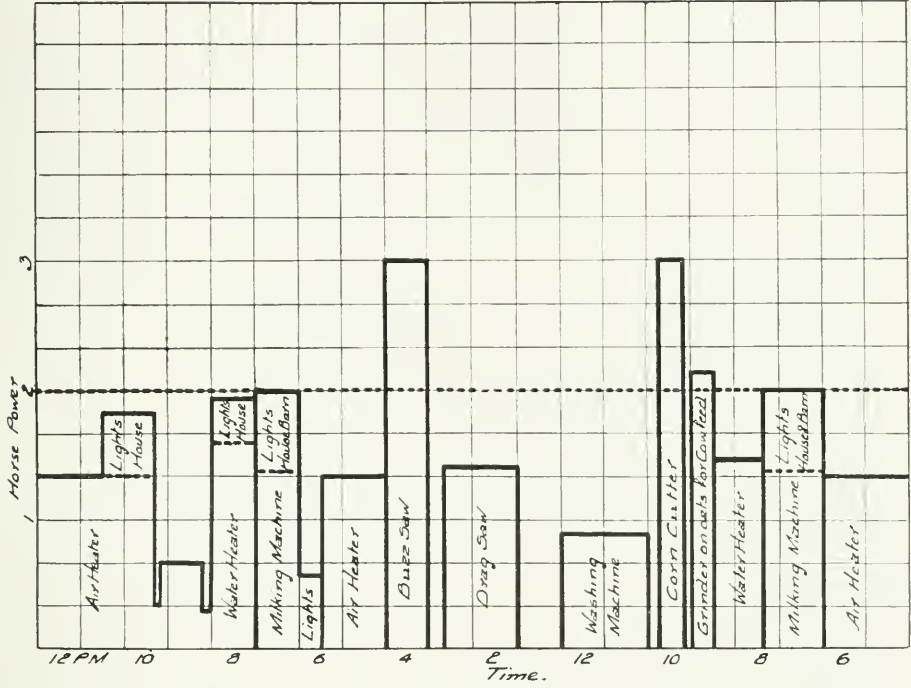
2-h p. Motor, Belted to Drag-Saw at Mr. Raymond's Farm

From notes and charts it has been found that the following work can be done in the time noted with a 2 h.p.

Oats, ground fine enough for cow feed, about	10 bu. per hr.
Barley, fine enough for cow feed, about	6 bu. per hr.
Oats, fine enough for pig feed, about	3 bu. per hr.
Barley, fine enough for pig feed, about	2 bu. per hr.
Corn cutting, about 3 sheaves per min. when split in half.	
Turnip pulping, about	1¾ bu. per min.
Water heated with 1 h.p. (Container to be insulated to prevent radiation)	80 qt. in 8 hr.*

*This is computed from a test with 2,000 watts for 25 min.

This farm is equipped with nearly all of the machines and appliances recommended by the Commission, so that a great deal of data has been secured here.



Load Curve secured at Mr. Geo. Raymond's Farm

The following tables show approximately the quantity of power in watts and in h.p. taken by some of the lighting and heating apparatus, and the power taken by some of the farm machinery.

Lighting		
	Watts.	h.p.
Lamps, carbon 8 c.p.	30	.04
Lamps, carbon 16 c.p.	60	.08
Lamps, carbon 32 c.p.	120	.16
Lamps, metal filament 20 c.p.	25	.033
Lamps, metal filament 32 c.p.	40	.054
Lamps, metal filament 48 c.p.	60	.08
Lamps, metal filament 60 c.p.	80	.107
Heating		
Air Heaters	250 to 6,000	.333 to 8.05
Broilers	300 to 1,200	.4 to 1.61
Chafing Dishes	200 to 500	.37 to .67
Cigar Lighters	75	.1
Coffee Percolators	100 to 440	.135 to .59

Curling-Iron Heaters	60	.08
Fireless Cookers	100 to 440	.135 to .59
Flat-irons, 3 lb.	275	.37
Flat-irons, 4 lb.	350	.47
Flat-irons, 5 lb.	400	.53
Flat-irons, 6 lb.	475	.64
Foot Warmers	50 to 100	.067 to .53
Griddle Cake Cookers	300 to 1,000	.4 to 1.38
Heating Pads	50	.067
Immersion Heaters	110 to 440	.15 to .59
Nursery Milk Warmers	450	.65
Ovens	1,200 to 1,500	1.61 to 2.
Ranges	1,000 to 4,500	1.38 to 6.
Samovars	350 to 700	.47 to .93
Shaving Mugs	150	.2
Stoves, 3 in., 1 heat	100	.13
Stoves, 4-5 in., 3 heat	50 to 220	.067 to .29
Stoves, 6 in., 3 heat	100 to 440	.135 to .59
Toasters	330 to 1,000	.44 to 1.38
Water Heaters	400 to 800	.53 to 1.07

Power

Farm Appliances

	h.p.	
Milking Machines	1/2	to 2
Water Pump	1/8	to 1
Grinders	2	to 5
Straw Cutters	2	to 5
Turnip Pulpers	1	to 5
Circular Saw	2	to 5
Ensilage Cutters	2	to 15
Washing Machines, small	3	to 10
Standard Washing Machines	14	to 25

Dairy Appliances

Cream Separators	1/6	to 1/4
Churns	1/6	to 1/4
Butter Workers	1/8	to 1/2

Domestic Appliances

Sewing Machines	1/12	
Vacuum Cleaners	1/12	
Washing Machines	1/6	
Fan	1/32	to 1/16
Hair Drier	1/2	to 7/8
Buffing, Grinding and Polishing	1/10	to 1

SUMMARY OF TEST ON ELECTRICALLY OPERATED FARM MACHINES. DATA PREPARED BY THE GENERAL ELECTRIC COMPANY.

Operation.	Capacity of Machine per H.P.	Size of Motor H.P.	* Size of Motor recommended.	Kilo-hour re- quired per unit.	Operating Cost, including interest, depreciation and labor, with cost of electricity, from 1c. to 10c. per kw.-hr. per unit.					Cost of Labor and Interest by per cent.	Depreciation and Power by per cent.	
					1c. 3c. 5c. 8c. 10c.							Labor at 15c. Per cent.
					Per cent.							
Grinding Ear Corn	40 bushels.....	15	15	0.411	0.0236	0.0318	0.0400	0.0525	0.0606	19.0	30.0	51.0
.. Shelled Corn (fine).....	41.5.....	25	15	0.272	0.0139	0.0194	0.0248	0.0329	0.0384	30.0	15.0	55.0
Crackling Shelled Corn	65 bushels.....	25	10	0.086	0.0163	0.012	0.0137	0.0163	0.018	33.0	36.0	51.0
Shelling Corn (cylinder sheller) ..	114 ..	25	10	0.0448	0.0119	0.0128	0.0137	0.0151	0.016	16.5	64.5	19.0
Rolling Oats (crushing)	111 ..	25	10	0.062	0.0063	0.0075	0.0088	0.0106	0.0119	31.0	34.0	35.0
6-Roll Shredder and Husker.....	1.95 tons	15	15	5.37	2.6300	2.7400	2.8500	3.0100	4.1200	2.7	88.0	9.3
Cutting Fodder.....	2 ..	10	15	2.08	0.3140	0.3550	0.3970	0.4590	0.5000	18.6	55.2	26.2
Root Cutter.....	5.78 ..	2	2	0.158	0.1135	0.1166	0.1198	0.1245	0.1277	43.5	50.0	6.5
† Threshing Barley.....	145 bushels	15	20	0.1257	0.0013	0.0038	0.0064	0.0100	0.0126	.....	.....	.....
Separating Milk	1,300 lbs.....	1 1/2	1 1/2	0.0386	0.0269	0.0276	0.0284	0.0296	0.0304	10.2	83.2	6.8
Churning, Working and Washing Butter	100 gal. churn.....	2	2	0.615	0.219	0.232	0.244	0.262	0.275	35.6	51.6	12.8
Grinding Sausage	750 lbs.....	4	2 1/2	0.441	0.824	0.091	0.100	0.113	0.122	20.0	58.0	22.0
Sausage Stuffer.....	116 ..	3	3	0.0525	0.3745	0.3756	0.3766	0.3782	0.3793	70.6	30.6	0.7
Washing Machine — capacity 12 sheets washful.....	3 sheets	1 1/2	1 1/2	0.0616	0.0429	0.0441	0.0454	0.0472	0.0485	18.2	75.0	6.8
Portable Vacuum Cleaner.....	1,000 square feet.....	1 1/2	1 1/2	0.0226	0.0198	0.0203	0.0207	0.0214	0.0219	48.2	46.2	5.6
† Large Vacuum Cleaner	1,640 ..	3	3	0.107	0.091	0.093	0.095	0.098	0.100	6.3	88.0	5.7
Horse Groomer.....	7 horses	1	1	0.106	0.029	0.031	0.033	0.036	0.038	67.5	16.5	16.0

* This column shows the h.p. of a motor which is best adapted to a machine of this particular capacity.

† The interest and depreciation on the thresher is excluded in this calculation as the machine was a custom machine, and it was impossible to secure the number of hours the machine was used during the year.

‡ The aggregate amount of work done in this case by the cleaner is too small to warrant such a large installation, because of the excessive depreciation and interest.

§ These percentages were figures from the actual tests, and are based on one year's operation of the machine on the farm where it was tested.

|| If the farmer had selected the proper sized machine, many of the percentages in this column would have been materially reduced.

These tests were made on farms under actual operating conditions. The kilowatt hours required per unit of work will be approximately the same for either smaller or larger machines, providing they have been properly installed. Depreciation is figured at 10 per cent, and interest at 6 per cent, in all calculations.

Besides the saving in operating cost, the time saved in every case was quite large. Every farmer will appreciate this, as it will materially aid him in the solution of his labor problem.

LAMP, ILLUMINATION AND METER INVESTIGATIONS

Lamps

At the spring of the year the testing apparatus for lamps consisted of a specially designed rack capable of holding two hundred lamps. The current supplied for this came from the ordinary lighting mains, with no additional provision for the regulation of potential, owing to the fact that the quarters were temporary.

Samples of the various makes of lamps on the market were obtained, and their various initial ratings and their comparative performances determined. A certain percentage of these samples were photometered by Toronto University, and candle power curves calculated. The mechanical features were also carefully gone into, as the ruggedness of any type of metal filament lamp is of special importance to consumers.

From time to time reports were made, and on February 5th sufficient data was on hand to recommend the purchase of Laco lamps to satisfy the demands of the municipalities at that time. This make of lamp was recommended in preference to the various others tested by reason of its good mechanical construction, good life performance, and extremely low cost. Some of the other makes proved equal or even preferable in the first two items, but the low price asked by the Laco Co. altogether outweighed these considerations. This recommendation has been substantiated by further reports. Since February the advantage of low price held by the Laco lamp has lost considerable weight owing to the subsequent large reduction in prices of the Canadian-made lamps, and at present a large portion of the trade is divided with these manufacturers.

The following makes of tungsten lamps were submitted to test during the current year:—

Sunbeam Mazda.
Franklin Mazda.
Osram.
Laco.
"Z."
French Palo.
British Continental.
Siemens.
Fedram.
Monowatt.
Briton.
Graetzon.

G. E. Mazda.
Kolloid Wolfram.
Westinghouse.
Royal Ediswan.
Bergmann.
German Palo.
Dalite.
Nick.
Lion M.
Wixum.
Northern Light.
Electric Accessory Co.

The respective quality of the various makes of carbon lamps was also investigated, and resulted in the general recommendation of Canadian-made lamps. These were found to be closer to our specifications and to be possessed of better life characteristics than imported ones. The following types of carbon lamps were tested:—

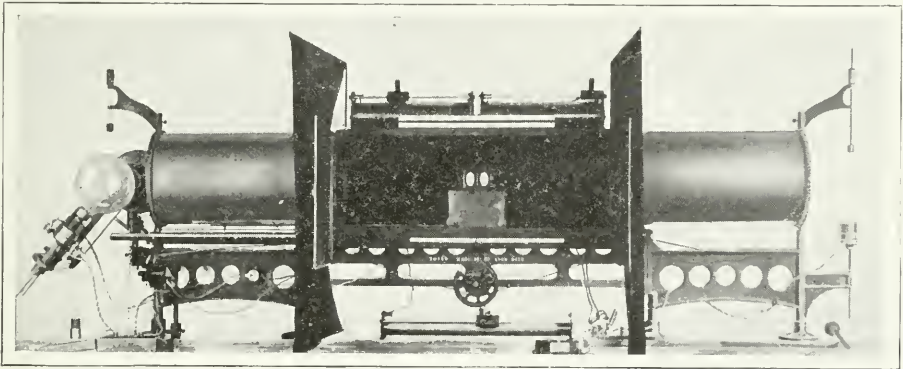
Sunbeam.
Brilliant.
Freidman.
R. Ediswan.
Chapman and Walker.
Federal.
Rex.
Siemens.

Canadian General Electric.
Bergmann.
Robertson.
Central Electric & School Supply.
Electric Product.
Premier.
Watt.

In June, a 100 inch laboratory photometer was installed at Strachan Avenue substation. This type was adopted on account of its suitability for rapid as well as accurate measurements, the former being important, taking into consideration the number of lamps which were being submitted for test and the prospective rapid increase in the quantity inspected. Other apparatus designed for testing the evenness of the filaments and the quality of the vacuum in the lamps was also installed, thus putting the lamp testing on an unquestionable basis.

A microscopic investigation was conducted on the relative quality of the drawn wire and pressed filaments, the object being to compare the deterioration of the two types from the factory product to the end of the average life of the tungsten lamp, approximately 1,000 hours. The test samples consisted of lamps representative of the two types and of equal rating. These lamps were burned on 25 cycle circuits, and a sample was examined at the end of each 200 hours of life.

Initially the pressed filament appears to be in a state of molecular strain, which can be attributed to the method pursued in its formation. Throughout its length the characteristic wavy structure is noticed as in visceous material under pressure. Small grooves transversely located seem to indicate line of weakness. Drawn wire



Photometer, Toronto Station

filament presents the appearance of having many longitudinal ridges, these ridges having an extremely small diameter. The strain condition, as noted in the pressed type, is absent. Generally speaking, the drawn wire filament appears to be and is mechanically stronger than the pressed filament, this condition being due to the process of manufacture by which the molecules are repeatedly worked and elongated, assuming positions conducive to tensile strength and ductility.

After short operation at normal working temperature, the drawn wire filament, however, loses practically all ductility and resembles superficially a pressed filament at the same period of its life. Numerous other interesting features were also noted during this investigation.

Summing up results, the following conclusions may be drawn in regard to the two types from the point of view of the consumer.

Initially, the drawn wire lamp presents the advantage of greater ruggedness, which is not only due to the ductile properties of its filaments, but also to the better mechanical construction which is rendered permissible in the lamp owing to this feature. This is a point which has a decided bearing on breakage in shipment and in handling the lamp before it is installed, and consequently is of considerable importance.

During life while the actual strength of the filament may deteriorate to that of a corresponding pressed filament, after a short period of burning; the mechanical construction being superior, the ruggedness of the drawn wire lamp is still superior to that of the pressed filament.

Again the manufacturing operations being simplified and reduced, there being one continuous filament instead of several independently manufactured, and two pinched joints instead of eight or more fused ones, the probable defects caused in manufacturing are correspondingly decreased and thus the percentage of lamps, which may be classified as defective when received by the consumer, should be reduced.

Performance curves of the available makes of both tungsten and carbon lamps were determined and by reason of the constantly improving qualities of the different makes, these comparative curves are now obtained periodically in order to substantiate recommendations.

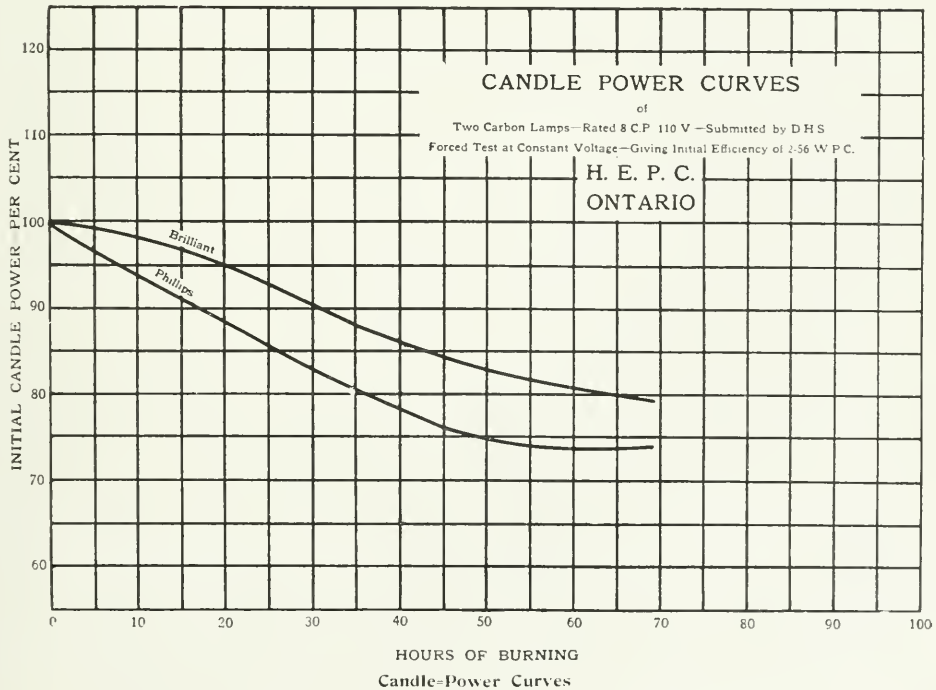
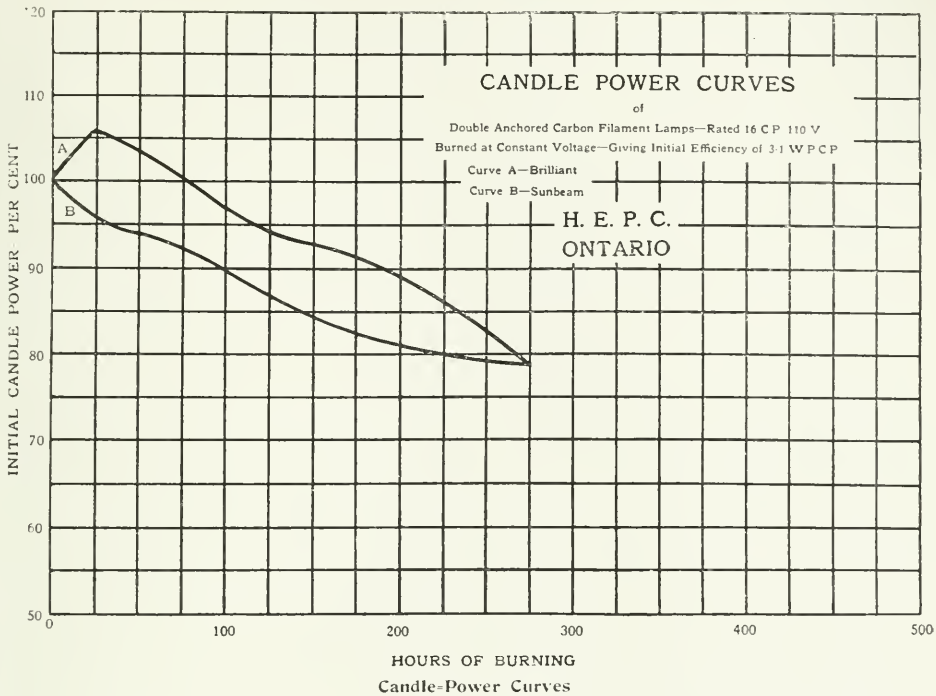
It might be advisable to explain on what basis recommendations are made when a certain type of lamp is specified for use throughout the Hydro-Electric System. The recommendation is not based on an opinion, but on an absolute calculation based on the data obtained from the photometric test of the lamps.

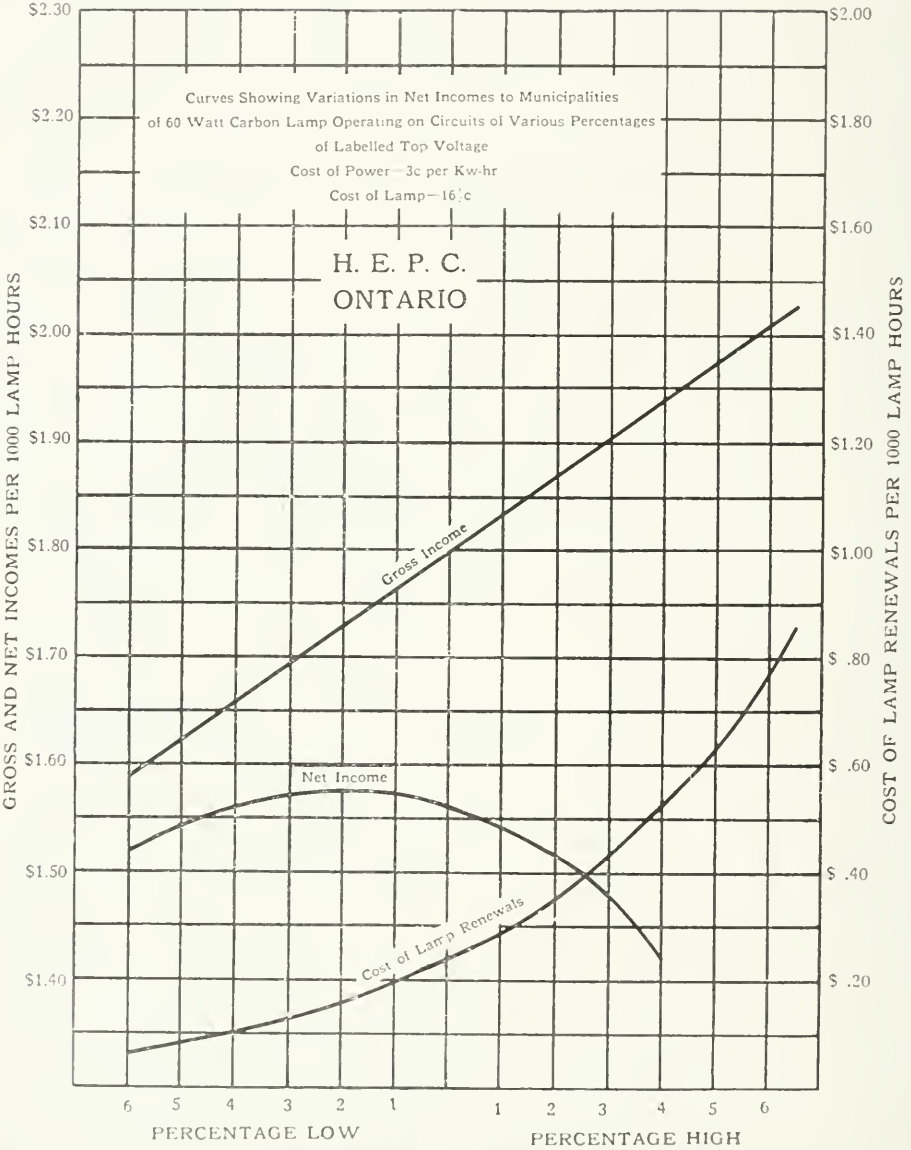
A lamp is required to produce illumination, this desired illumination being obtained by a certain candle power intensity in the lamp. From this it can be understood that which is paid for is hours of light, or to put it differently, candle hours. Therefore the light source showing a minimum total cost per candle hour under certain conditions is the one to be chosen for that type of installation. Factors governing this total cost of up-keep are,—the first cost of the lamp—its average candle power during life—the average watts consumed per candle power during life—its average life in hours to smashing point and finally the cost per kw-hr. for energy.

Having obtained the above necessary information on the different types of lamps on the market, the calculations are made and the type of lamp showing the lowest cost per candle hour is the one which is recommended for use.

Calculations were also made and curves obtained illustrating the correct efficiency at which a certain type of lamp should be burned in order to obtain a minimum cost per candle hour for that type. This efficiency varies with the price of power, the cost of renewals and the life of the lamp and with the low rates of power prevailing on the Hydro-Electric system is a matter which should be determined and the information utilized.

Specifications for lamps purchased were drafted after a study had been made of those issued by the American Bureau of Standards and of others issued by various private corporations. These specifications were forwarded to the companies supplying lamps to the Commission. In connection with this it might be noted that owing to lack of photometric equipment at the Dominion Laboratory, Ottawa, any question raised by the manufacturer as to measurements, would necessarily have to be referred to the American Bureau of Standards for verification.



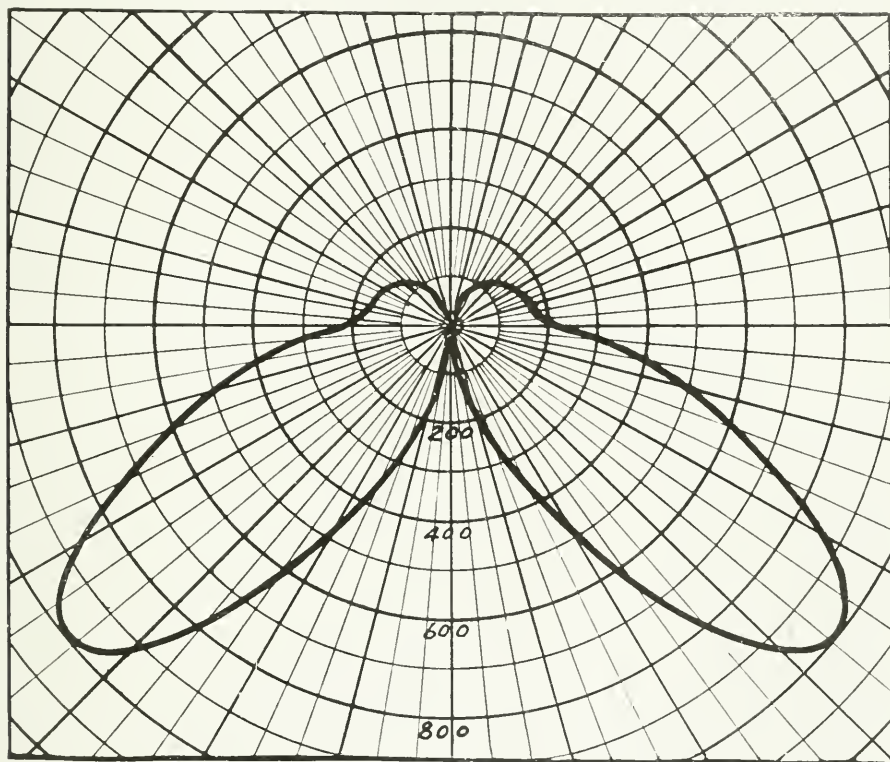


Curve Showing Variations in Net Incomes to Municipalities

Illumination

Data was obtained on the efficiency and distribution of various reflectors on the market especially those adapted for street lighting. The distribution obtained from a light source is of prime importance in street lighting and one where there is considerable room for improvement. The attached diagrams show some typical distributions obtained from different light sources.

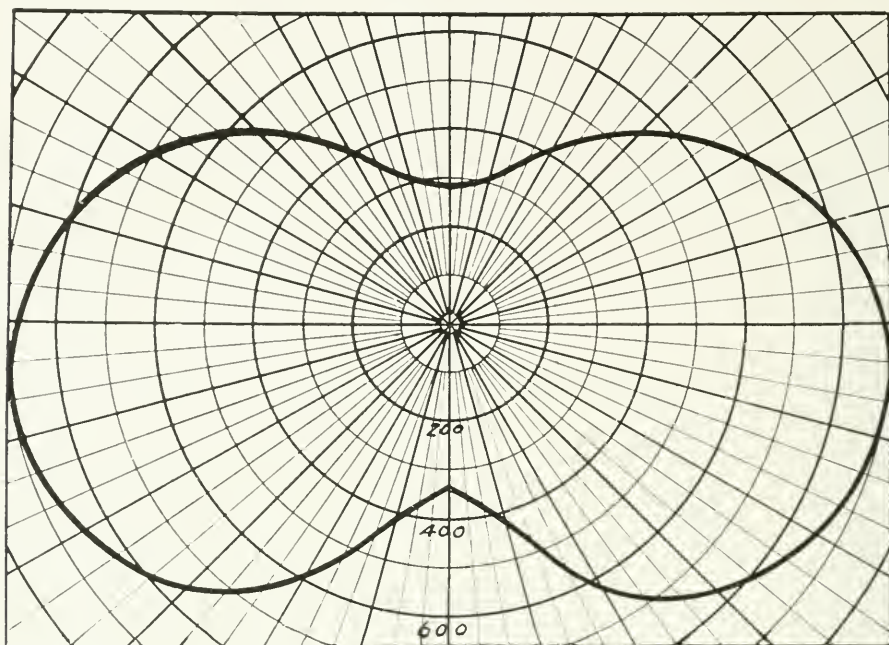
The importance of choosing a type of glassware having a maximum diffusion with minimum absorption cannot be too strongly brought to notice. The accompanying illustrations show the wide variation in efficiency of the different types.



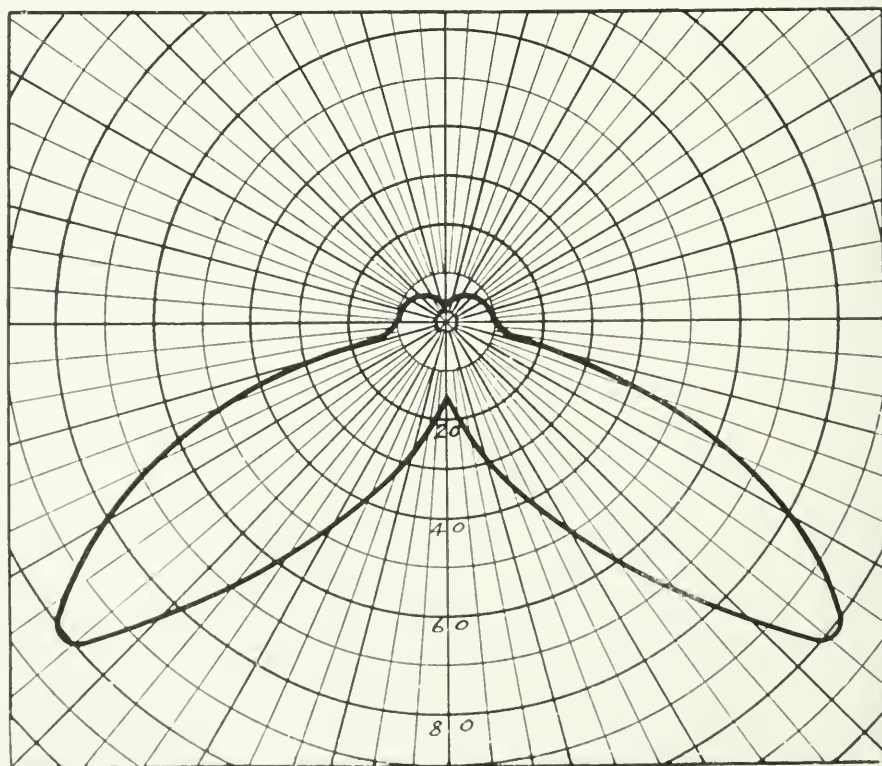
Curve Showing Distribution from 500 Watt Enclosed Arc Lamp

Another feature brought to notice is the necessity of cleaning frequently the glassware used in street lighting. The absorption by dirt amounts to a considerable percentage of the total flux generated after a very few weeks' use.

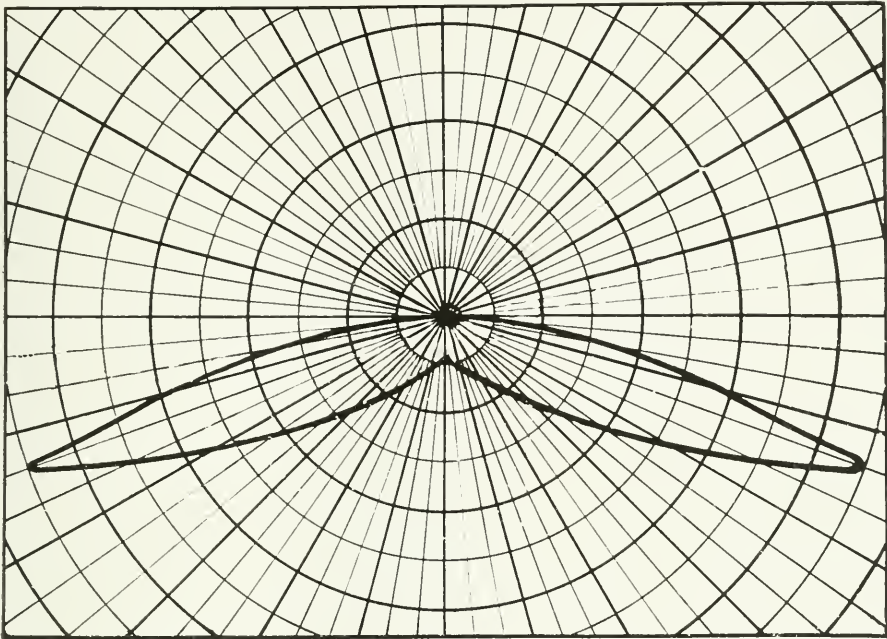
A Sharp—Millar Illumination photometer was purchased in June, and during the months of July, August and September investigations were made into the types of street lighting systems in use by the municipalities in the Hydro-Electric system. The general idea of these investigations was to obtain measurements of the resultant illumination derived from the different systems, photos giving the physical appearance, and such other details that would prove of use in the laying out or in the advising of future installations.



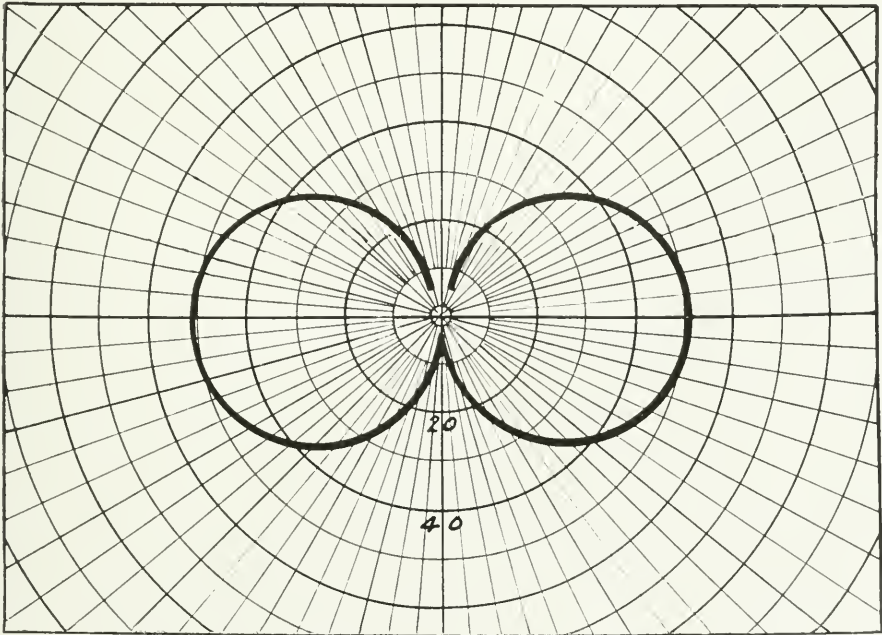
Curve Showing Distribution from 500 Watt Luminous Arc Lamp



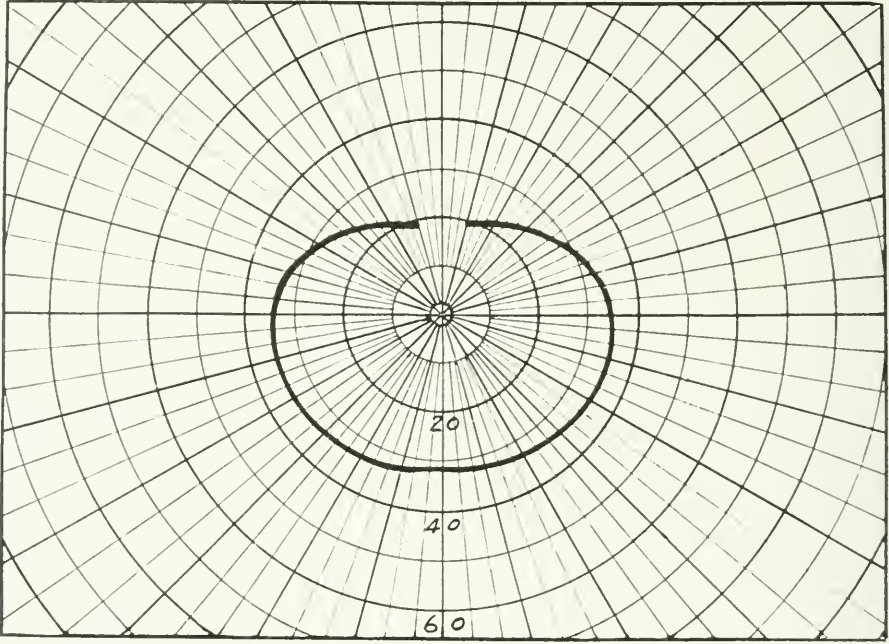
Curve Showing Distribution from 90 Watt Lamp, Equipped with Holoplane Street Lighting Reflector



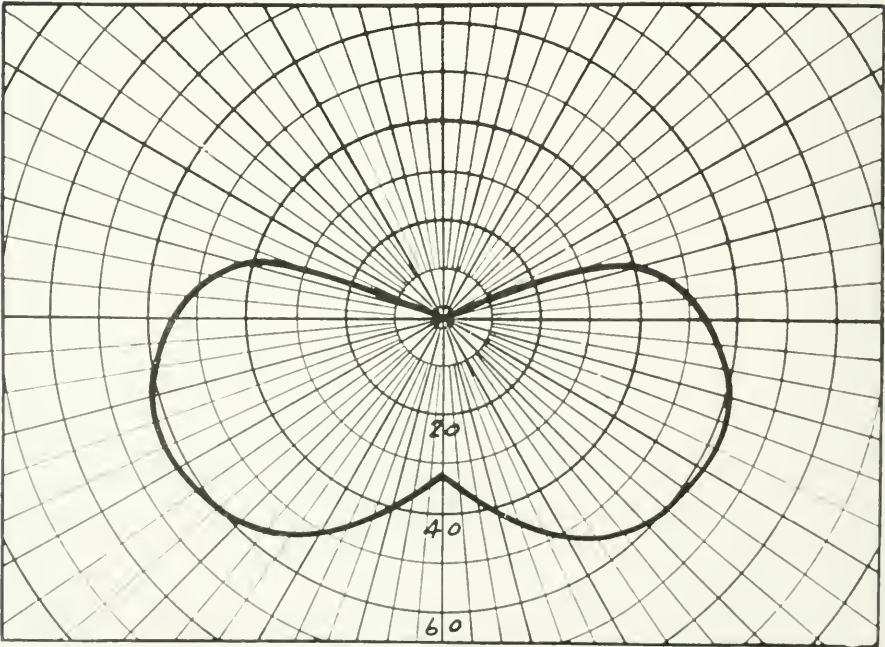
Curve Showing Theoretical Distribution for Equal Horizontal Illumination (Space = 6)
Height = 1



Curve Showing Distribution from 90 Watt 110 Volt Clear Tungsten Lamp



Curve Showing Distribution from 60 Watt Lamp, Equipped with 12-in. Diffusing Globe.



Curve Showing Distribution from 60 Watt Lamp, Equipped with Radial Wave Reflector.

Accompanying illustrations give data on some of the typical installations. These are:—

Richmond Street, Toronto

5 lamp clusters, lamp surrounded by diffusing globes.

Jarvis Street, Toronto

Lantern type fixtures, single lamp surrounded by diffusing 8 in. cylinder.

Victoria Avenue, Hamilton

Enclosed arc system.

Cameron Street Galt

Series tungsten Wheeler reflector.

This collected information is shown in approximately a standardized form in order to simplify comparisons of the different systems. The method of showing the resultant illumination by means of isolux areas has probably not, been attempted before. The idea has been but roughly carried out, but even as it is, has the great advantage of presenting pictorially the approximate conditions of the illumination on the street, which, when stated in foot candles intensities, are not conveyed to the average reader. On account of the wide divergence in the maximum and minimum illumination each area is forced to include a considerable range in the intensity of illumination. Actual foot candle intensities, however, can be obtained at any point from the illumination curves.

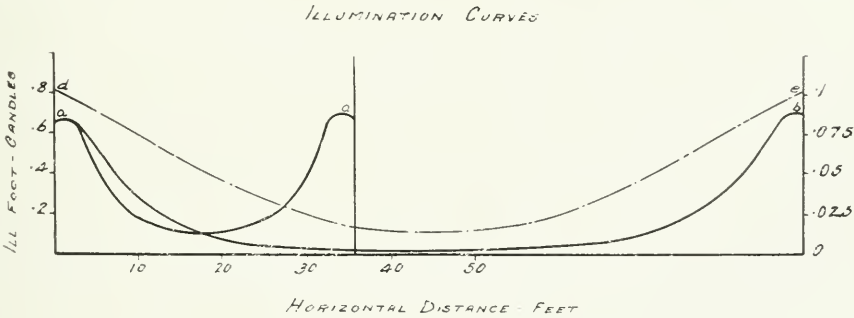
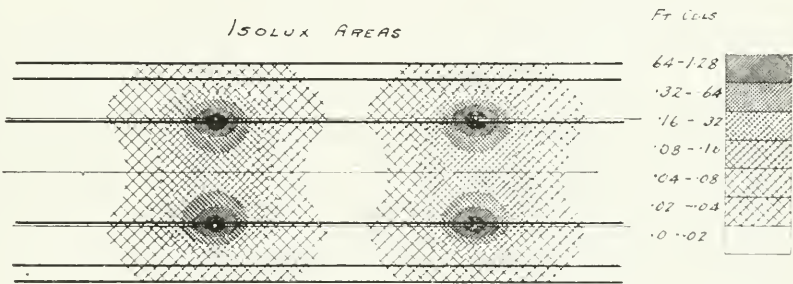
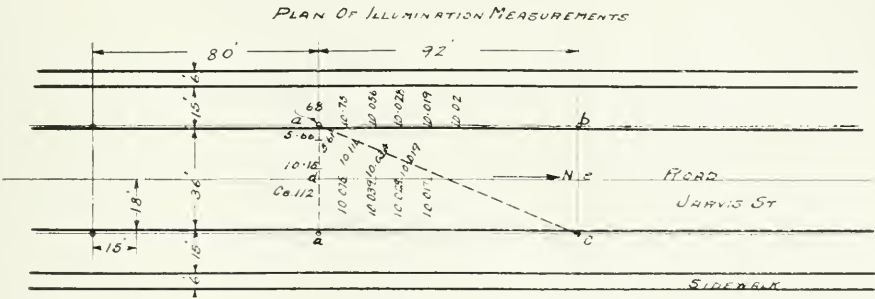
A noticeable feature in the many ornamental systems encountered is the lack of originality in the choice of standards. A 5-lamp cluster of classic design has been adopted in nearly every case, and in many places is totally unsuited to its surroundings. In the smaller towns a single lamp standard of less imposing design should be recommended and adopted. Glare, though diminished by the adoption of diffusing globes is considerably in evidence. A night photograph of an installation shows fairly clearly by the spread of halation around the light sources on the negative, conditions that the eye has to contend with in looking down the street. These points have been discussed with the local Commissions and recommendations made, to increase the height of the light sources on the standards and restricts, if possible, by means of reflectors the flux of light from each source to a certain area apportioned to that unit. The evenness of the illumination derived from these ornamental systems still leaves considerable to be desired. The ratio of maximum to minimum illumination averages 20 to 1, a variation so wide and occurring at such close intervals along the street, as to promote eye-strain.

Summing up the features of the various installations examined, the following improvements are suggested:—

Increased Evenness of Illumination

This may be accomplished: 1. Decreasing the ratio of spacing to height of light sources, and thus the ratio of maximum to minimum illumination. The present ratio of spacing in Toronto, for example, is approximately 9-1. A ratio of 6 to 1 is not difficult to attain and this may be realized preferably, by

STREET LIGHTING DIAGRAM

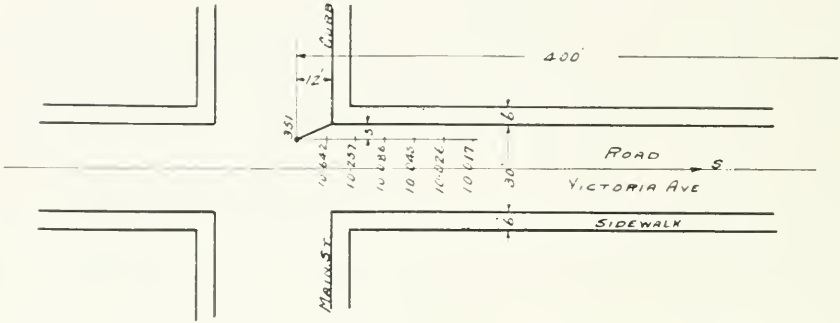


MAX ILL. 0.7 FT CANDLES MIN STREET ILL. 0.1 FT CANDLES AVER ST ILL. (CENTRE) 0.036 FT CANDLES
WATTS PER LINEAR FT 2.22 WATTS. WATTS PER SQ FT 0.124 WATTS.

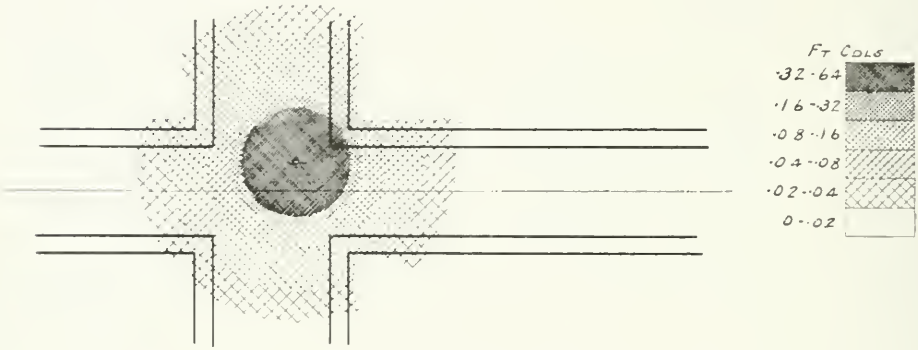
TYPE OF LIGHT SOURCE - TUNGSTEN LAMP TOTAL WATTAGE 100. APPROX TOTAL M.A.C.P. 80. APPROX LUMENS 800
DIFFUSING APPARATUS - LANTERN TYPE (DIFFUSING CYLINDER) HEIGHT OF LAMP 9' 6"
SPACING OF STDS 90' (APPROX) HEIGHT OF PLANE OF MEASUREMENT 30"

STREET LIGHTING DIAGRAM

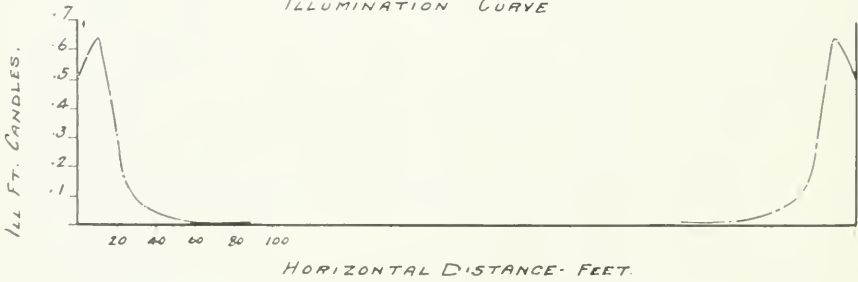
PLAN OF ILLUMINATION MEASUREMENT



ISOLUX AREAS



ILLUMINATION CURVE



MAX. ILL. - 0.65 FT CANDLES MIN STREET ILL. 0.107 FT CANDLES AVER. ST. ILL (CENTRE) - 0.107 FT CANDLES

WATTS PER LINEAR FT. 125 WATTS WATTS PER SQ FT. 0.21 WATTS

TYPE OF LIGHT SOURCE - ENCLOSED ARC TOTAL WATTAGE - 500 APPROX M.H.C.P. 2000 (MAN) APPROX LUMENS - 10000

DIFFUSING APPARATUS - OPAL GLOBE

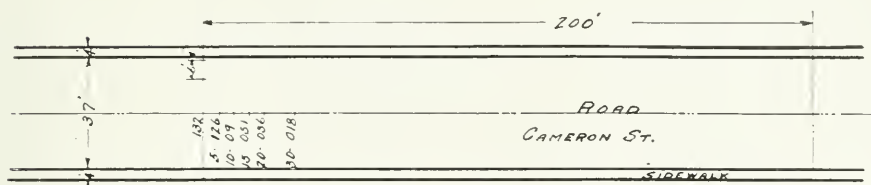
HEIGHT OF LAMP - 30'

SPACING OF STDS. - 400' APPROX HEIGHT OF PLANE OF MEASUREMENT - 30'

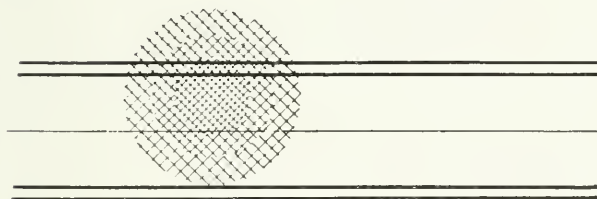
Victoria Ave., Hamilton

STREET LIGHTING DIAGRAM

PLAN OF ILLUMINATION MEASUREMENTS



ISOLUX AREAS



Ft. Cols.

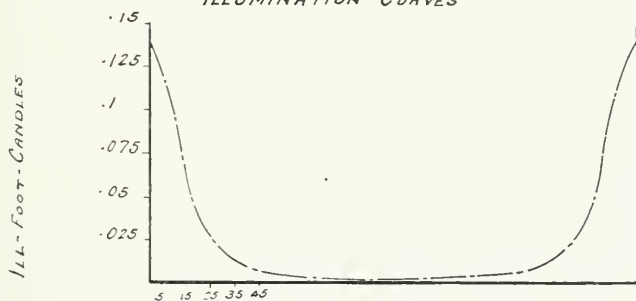
.08-.16

.04-.08

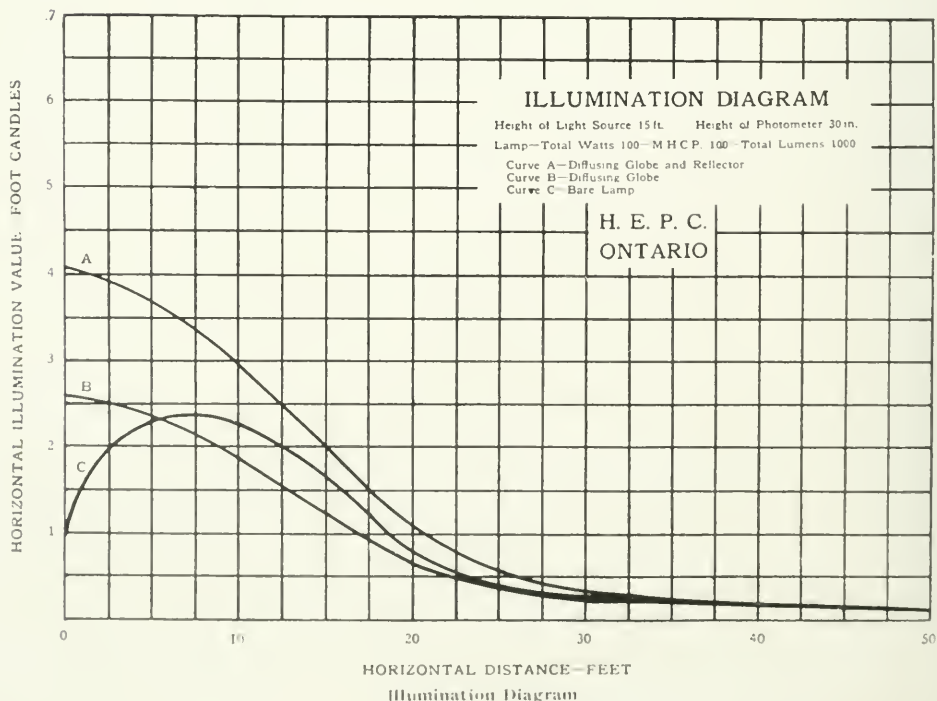
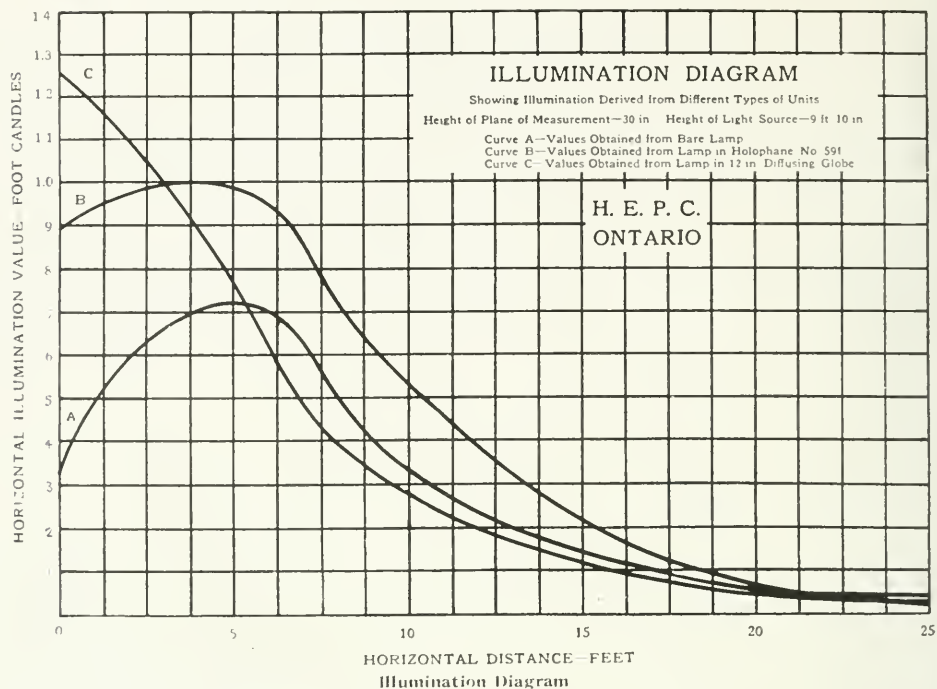
.02-.04

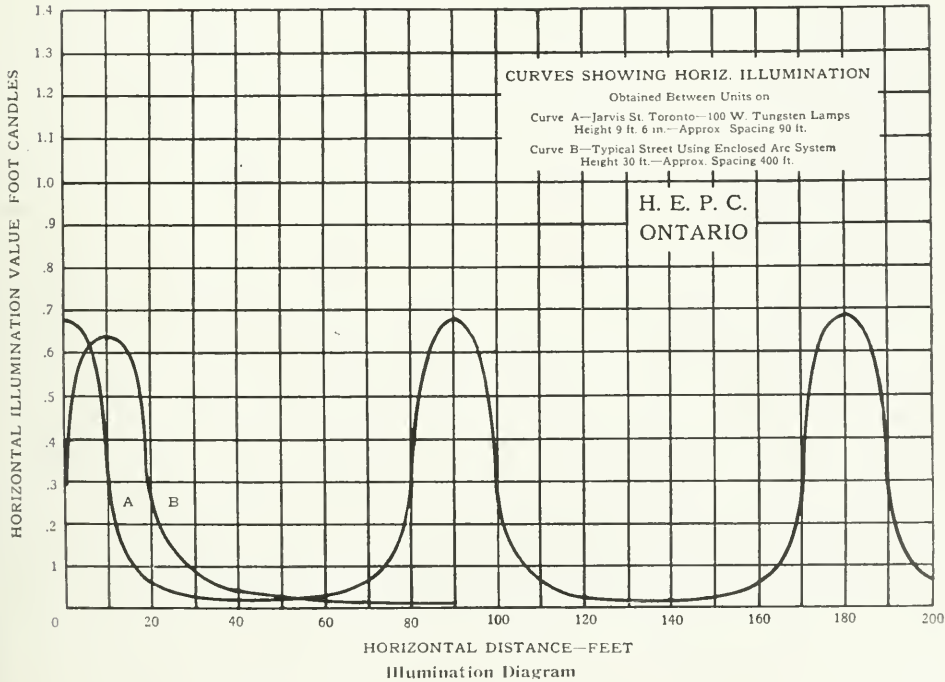
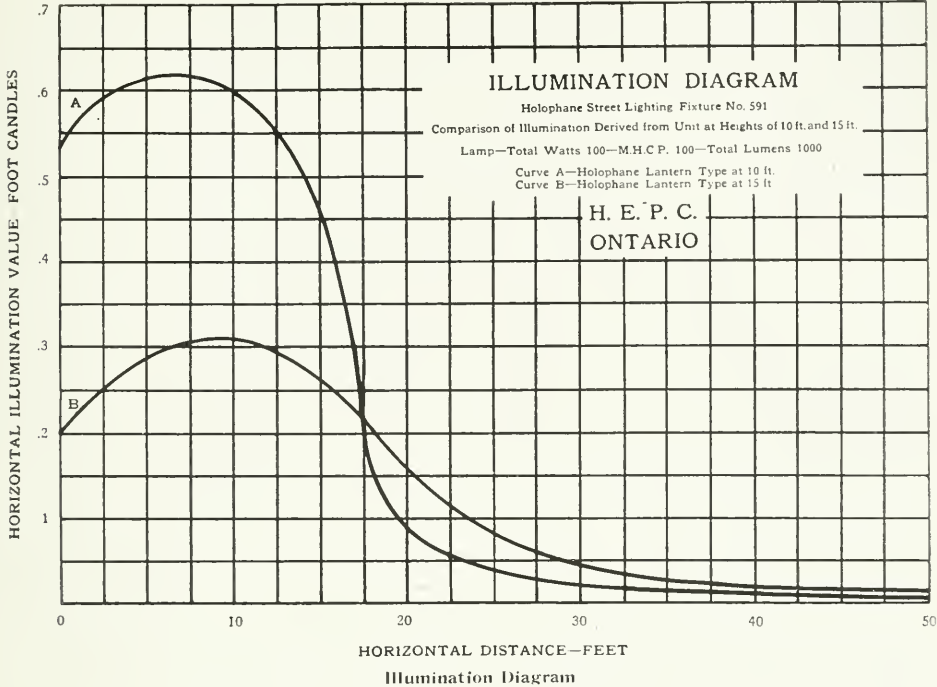
0-.02

ILLUMINATION CURVES

MAX. ILL. - 0.132 FT Candles MIN. ST ILL. - 0.009 (calc) AVER. ST. ILL (CENTRE) - FT CandlesWATTS PER LINEAR FT. - 5 WATTS WATTS PER SQ. FT. - 0.014 WATTSTYPE OF LIGHT SOURCE - SERIES TUNGSTEN TOTAL WATTAGE - 100 APPROX. M.H.C.P. - 80APPROX LUMENS - 800DIFFUSING APPARATUS - 18 WHEELER REFLECTOR HEIGHT OF LAMP - 16'SPACING OF STDS. - 200'HEIGHT OF PLANE OF MEASUREMENT - 30"

Cameron St., Ga t





increasing the height of the units rather than by decreasing the spacing. In connection with this, the practice of staggering the standards on each side of the street is usually to be recommended and accomplishes, to a certain extent, the above recommendation without increasing the number of standards or the height of same.

2. By improving the distribution of the light intensities from the sources. The distribution of an incandescent lamp is extremely inefficient for street lighting, the upper hemispherical flux being a large portion of the total and being of little use, and the lower hemispherical flux giving an intensive rather than an extensive candle power curve. This extensive distribution can only be attained by the use



Brampton Standard Lamp Bracket

of efficient reflectors or by the adoption of light sources other than incandescent lamps, giving a more ideal distribution for this work.

Second Class Street Lighting

The usual system encountered is that of using 80 or 100 c.p. series lamps placed 15 to 16 ft. above street, 200 ft. spacing, sometimes more. A considerable improvement could be effected by the adoption of say 250 watt lamps at even wider spacing thus taking advantage of the silhouette effect, being that obtained when an object is interposed between an observer and a bright background. With the 80 c.p. lamp the illumination is too low on the area surrounding the pole to make this feature available.



Single Globe Park Standard



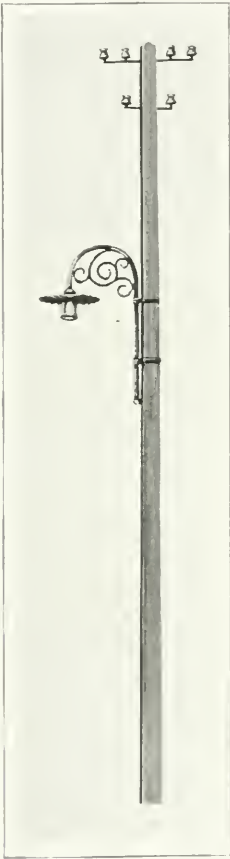
Standard Single Lamp Bracket

Corner Lighting

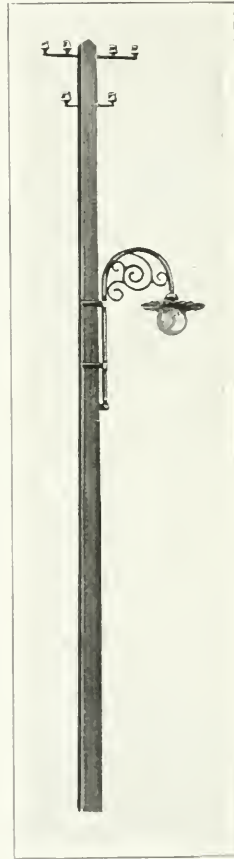
The illumination at all street intersections should be considerably increased over the average illumination between corners, the reason being obvious. This feature has been largely adopted in Woodstock and will become a part of the Hamilton Street Lighting System.

Glare

This physical phenomena is unfortunately present in all installations consisting of low hung light sources of high intensity or surface brightness. If the units



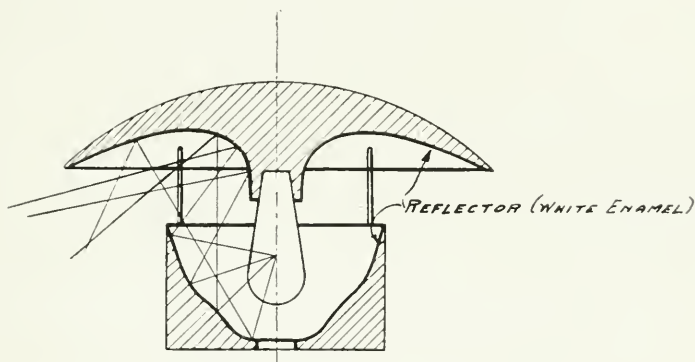
Street Lighting Bracket



Street Lighting Bracket

lie directly in the line of vision or at a small angle therefrom (approximately 20 to 25 deg.) the normal acuity of vision at that illumination is considerably decreased. The remedy lies in decreasing the surface brightness of the source of light by surrounding it with a globe of diffusing glass which accomplishes the desired effect, though at considerable absorption, or else by removing these units from the direct line of vision, which may be accomplished by restricting the flux of light to a certain area surrounding each source, and thus limiting the angle of incidence at which light from the same enters the eye.

In connection with the elimination of glare and the improvement of distribution of light intensities from a unit, the indirect street lighting fixture, which is supposedly being developed by some of the manufacturing companies at our suggestion, should accomplish a very great deal. By means of the two reflectors theoretically the flux of light can be restricted to the desired area and the distribution curve from the same may be such as to result in even illumination with a



Suggested Type of Fixture for Indirect Street Lighting

given ratio of spacing to height on which to calculate the same. Whether a reflecting surface of some cheap material such as porcelain enamel can be utilized which will produce the desired curve, and whether the absorption by the double reflection of a considerable portion of the flux will not prove too large, is a question which has not been settled.

Meters

The choice of the most suitable type of watt-hour meter being a question of prime importance to the municipalities, investigations were started along this line early in the year. Several Canadian factories were visited and the methods of construction and calibration were noted. A meter testing board was set up at Strachan Ave., with the necessary apparatus for producing a varying load, potential and power factor, as well as specially designed instruments for measuring the torque and friction of the moving element. Samples of eight different makes of watt-hour meters were obtained and a series of tests performed.

As regards the recommendation to the municipalities of a certain type of meter, the following points must be considered. If the power charges were based solely on current consumption as shown by meter, the most accurate and best constructed meter irrespective of cost would probably be ultimately the most economical. As, however, the charges throughout the system are determined by adding current charges, as ascertained by the meter, to a fixed area charge having no relation to the current consumed, it is conceivable that the economy from a highly accurate, as compared to a less accurate and less expensive meter, would not by the increased revenue from more accurate meter reading off set the greater interest charge on the larger capital invested in the meter.

In order to decide between high priced, highly accurate meters and suitable cheaper and less accurate meters, which in some cases may show meter readings a good deal less than the volume of current actually passed through the meter, not only are a series of careful tests with the different types of meters available, essential, but also a knowledge of the performance of a large number of such meters on actual service runs during considerable periods. The data which is required to figure out comparative results will include:—

1. The Losses in Metering.

- (a) Loss in watts in potential coil multiplied by hours per annum.
- (b) Average loss due to inaccuracy of registration at average load multiplied by working hours per annum. This could only be determined by service runs, and would be governed by the frequency of inspection and recalibration.

2. Charges for Renewals.

Ascertained from data obtained from meters in actual service.

3. Percentage of Prime Cost to be written off annually for Depreciation.

This percentage can be ascertained only by experience. It would be well to under estimate rather than over estimate the number of years useful service to be got out of each type of meter.

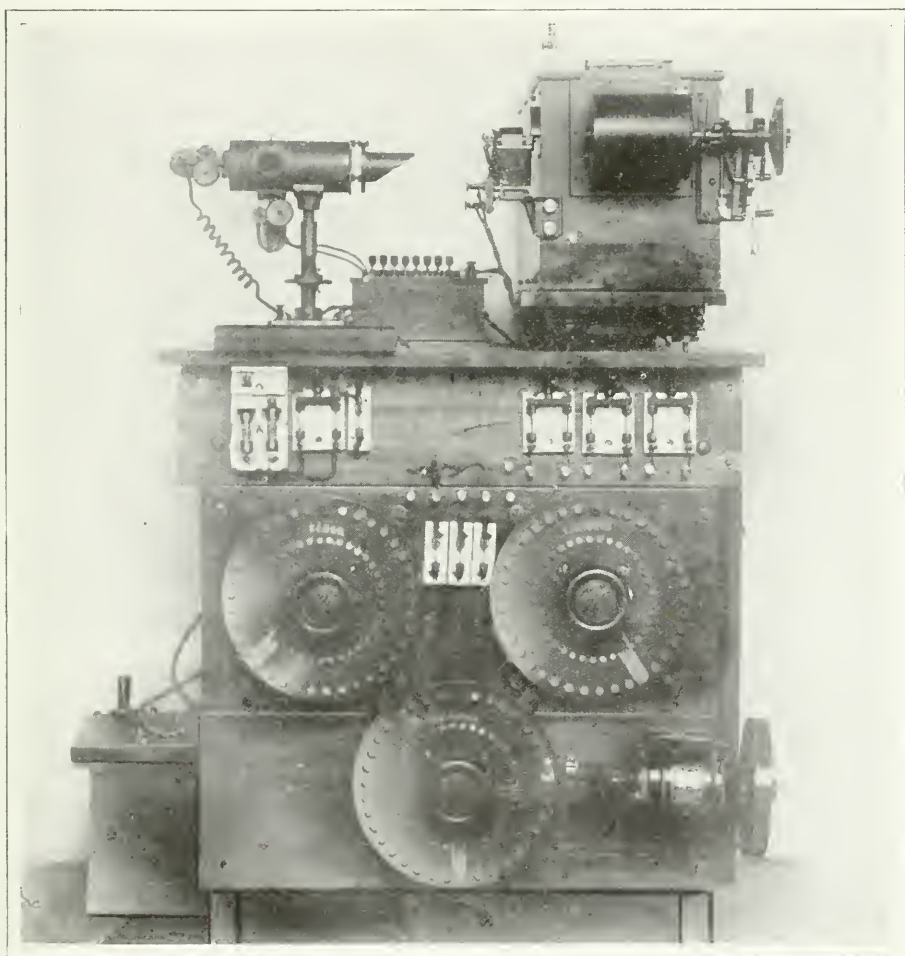
4. Annual Interest on Prime Cost.

Estimated 4 per cent.

If the various house service meters in use in the Hydro-Electric system were periodically tested and recalibrated and results available to the Commission, this data necessary to calculate the cost per type of meter per annum could be readily obtained. This is not the case, however, and as it would not be practicable to approximate values as a result of tests on a few meters only, the recommendations must necessarily cover the several types which in our opinion most nearly satisfy the desired conditions.

Investigations were also made on time switches, current limiters for use with flat rate customers, two rate meters, excess demand indicators, subtraction meters and other special metering devices.

Various indicating meters and primary standards have been added to the stock of instruments, and when the laboratory is available, all facilities for maintaining its secondary standards in first class calibration will be had. The indicating instruments which have been used by meter inspectors and also by the district engineers have been maintained in good condition and recalibrated periodically.



Oscillograph, Toronto Station

The oscillograph has proved valuable on several occasions and has been used in different parts of the system in connection with the investigations on electrolytic lightning arresters. A special table which may be taken to pieces and a box to contain it with the additional apparatus necessary, has been designed and constructed for the oscillograph and has proved of great value.

In connection with the work for the coming year, the Lamp Department will be able to extend considerably its usefulness. The storing and handling of all the lamps supplied to the municipalities gives a controlling hand over the manu-

facturers, insuring good and consistent quality, and also makes the delivery of lamps a quicker and much simpler operation. Tests and reports on the quality and performance of lamps will be also based on the performance of a large number rather than of a few samples, and much valuable information so obtained. The additional cost of storing, testing and handling lamps should not exceed 1 per cent. of the cost of same, based on the present shipment, and as the quantity of the shipments increase this percentage should diminish. Taking into consideration that the Commission will do the storing, a further reduction should be made by manufacturers, and so it is possible that no addition need be made in cost of lamps to the municipalities.

The photometric work will be allowed a much wider scope with the improved means the laboratory will give. The maintenance of secondary meter standards, the recalibration of working standards, the repair of graphic meters, etc., as well as the development of important and special types of meters will all be carried on in the laboratory, under favorable conditions.

The testing of transformer oil, insulators, etc., will also be taken over from the Dundas station.

CHAPTER V

HYDRAULIC INVESTIGATIONS

SUMMARY

County of Huron

Under date of December 5th, 1910, the Goderich Board of Trade made application to the Hydro-Electric Power Commission for a report as to the quantity of power capable of development on the Maitland River, with estimates of cost. The Board was informed that the Commission could not act in the matter except upon authority of a formal resolution from the Town Council. Under date February 2nd, 1911, the Chairman of the Commission, in response to a letter from the Clerk of the Municipality, again mentioned the necessity of obtaining a formal resolution of the Town Council setting forth the points upon which information was required. On February 27th, 1911, the Clerk of the Municipality forwarded the required resolution, asking for a detailed report as to the possibilities of power development on the Maitland River and also estimate covering the cost of power delivered from the Niagara System, by means of an extension of the Stratford-Seaforth line. Under date of March 1st, 1911, the Clerk was informed that the matter had been turned over to the Commission's Engineers for investigation and report.

Owing to the large amount of work already in the hands of the Commission's engineers, there was no opportunity to give the matter serious consideration until the last week in April, 1911, when two of the Commission's engineers visited Goderich for the purpose of estimating the market possibilities, and to make a preliminary investigation of the various power sites upon the Maitland River in the vicinity of the Town.

Previous to this visit to Goderich, the point came up during discussion as to whether or not it would be economically feasible to develop the higher stages of flow in the Maitland River and furnish auxiliary power to the Niagara System through an extension to the Stratford-Seaforth line. In the meantime, also, the various municipalities in the County of Huron had become interested, and the question of obtaining a supply of power for general distribution throughout the County was taken up seriously by the County Council. At the time of the Engineers' visit to Goderich this phase of the problem was discussed with several members and officials of the County Council, and from the beginning it was evident that these gentlemen were aware, in a general way, of the unfavorable flow characteristics of the river, and of the doubtful economy of developing Maitland power as an isolated proposition, owing to the comparatively small power capacity available under low water conditions. This led to discussion of the point above mentioned as to whether or not the surplus output of a plant installed to develop power from the higher stages of flow in the Maitland River could be economically supplied as auxiliary power to the Niagara System. It was admitted that from a theoretical standpoint the scheme was perfectly sound, but that exhaustive investigation along engineering and commercial lines would be necessary before a definite course of action could be laid down. As a result of this discussion the members of the Council put forward a proposition, which may be summarized as follows:—

1. For the County Council to acquire, at the expense of the County, all rights and privileges necessary, and to develop power on the Maitland River at such location and in such quantities as the Commission would recommend.

2. For the Commission to purchase the power so generated at cost and to distribute the same throughout the County of Huron over transmission lines built by, and at the expense of the Commission.

3. For the Commission to purchase, also at cost, such surplus power as might be available at different seasons of the year for the use of municipalities connected to the Niagara System.

A preliminary report was then submitted to the Commission outlining the proposal of the County Council and setting forth the various items of data and information which it would be necessary to procure before submitting a final report. These items included:—

1. An estimate of the extent of available market for hydro-electric power in the County of Huron.

2. A systematic investigation of the flow characteristics of the Maitland River, and the resulting power capacities at various seasons of the year.

3. An estimate of the cost of delivered power from the Niagara System, considered as a separate source of power.

4. An estimate of the cost of delivered power from the Maitland River, considered as a separate source of power.

5. An investigation as to the practical and commercial feasibility of combining the above sources of supply and making them jointly or alternately available.

This report contained only one final recommendation which had reference to the site for development. Owing to the small power capacity of the river under conditions of minimum flow, and the consequent necessity of creating as high a head as might be physically possible, it was considered that the site at present controlled by the Maitland River Power Co., known as the "Black Hole," was the best location available for the development of power.

On May 9th, 1911, a special Committee of the County Council of Huron met the Chairman of the Commission in Toronto. During the course of this meeting the members of the Committee were informed that as accurate hydraulic data in connection with the Maitland River was then almost entirely lacking, it would be unwise to submit any final recommendations until the flow characteristics of the river had been systematically investigated for a period of at least one year.

The Commission was asked in the meantime to open negotiations with the Maitland River Power Co., with a view to obtaining a year's option on the Black Hole site, and to report the result of such negotiations, with such other information as might be available, to the June meeting of the County Council.

The result of the Commission's negotiations was an offer from the Company to give a 6 or 12 month option, but the conditions attached and the purchase sum stipulated made it impossible for the Commission to accept the offer on behalf of the County of Huron, as with the data then available there was not satisfactory means of determining what the property was really worth as a site for the development of power. It was therefore thought best to advise the County Council that no recommendations or estimates would be forthcoming until such time as the Commission might be able to issue a final and comprehensive report. Report No. 1, hereto appended, outlines the hydraulic features of the problem, and is based upon such data relating to the flow characteristics of the Maitland River as had been collected up to the time the report was prepared.

Round Lake Storage Dam

For some time past the industries of the Municipality of Renfrew have been suffering severely from a shortage of hydraulic power in the fall and early winter, and at the request of the Council the engineers of the Commission carried out an investigation to determine by what means, if any, the above condition could be alleviated. It was ascertained that the development of storage in the upper watershed of the Bonnechere River, which is the source of power for the Municipality, would materially increase the minimum flow conditions of the stream. Five storage basins were found capable of advantageous development, these being Round Lake, Golden Lake, Clear Lake, Paugh Lake and Robitaille Lake. Of these the most important as regards storage capacity and capability of development was found to be Round Lake, and it was recommended that the development of the system as a whole should be commenced by the construction of a storage dam at the foot of Round Lake. In the winter of 1910 and 1911 a survey was made of this lake to determine the storage capacity and back water damage, and in the fall of 1911 the Commission was requested by the municipality to proceed with the construction of this dam. While the Commission had power, under existing legislation, to build the dam, it had no power at that time to levy tolls to meet the capital, operating and maintenance charges. The municipality was, therefore, informed that in order to proceed with the construction it would be necessary to have an agreement between the Municipality and the Commission whereby the municipality would temporarily be required to meet all charges against the construction and operation of the dam.

In the meantime, plans and specifications had been prepared and tenders called for, all tenders being required to be in the hands of the Commission on or before Nov. 17th, 1911. As the work would require to be done during the late fall and early winter, it was considered advisable to ask parties tendering to submit a schedule of prices based on doing the work during the low water season of the summer and fall of 1912. The following tenders were received:—

Contractors.	Amount of tender.	Date of completion.
	\$	
McCoy & Maguire	5,168 75	February 15th, 1912.
Jennings & Ross.....	5,885 75	March 1st, 1912.
W. A. Moore	6,410 00	March 31st, 1912.
W. W. Wallace	9,369 25	March 21st, 1912.
W. E. Roberts.....	10,048 00	August 1st, 1912.

The only party to put in a tender for summer work was W. A. Moore, and the total of his alternative tender was \$5,262.00, which is about \$100.00 more than the winter tender of McCoy & Maguire.

Although the Municipality was informed that the above agreement was required only to enable the Commission to proceed at once with the construction, and that subsequent legislation enabling the Commission to levy tolls would relieve the municipality of the obligations which it involved, it was not until January, 1912, that the agreement was finally signed. This delay, of course, made it necessary to hold over the construction until the summer of 1912, and as the tender of McCoy & Maguire was the lowest, irrespective of season, the contract was awarded to this firm. In the meantime, the senior member of the firm had withdrawn and a contract for construction was drawn up between the

Commission and C. D. Maguire, the same being signed on May 20th, 1912. A copy of this contract with the tender and specifications is appended hereto under Report No. 2. The contractor started work in July and although the contract called for the completion of the work by Sept. 15th, 1912, it is still far from complete. The reason for this is due, to a certain extent, to the abnormally high water conditions which have obtained during the past summer and to the rainy weather, but the chief cause for delay has been the condition of the labor market. Since the time the work started the contractor has kept in touch with all the labor centres in Ontario as well as in Montreal, and although he offered a higher rate for common labor than obtained elsewhere, he has found it absolutely impossible to obtain a sufficient working corps to carry out the work properly. The result has been that he has had to depend almost altogether upon such unskilled labor as he could obtain in the immediate neighborhood of the work. A further cause for delay was due to the discovery of a fault in the rock formation after the work had been started. This necessitated an alteration in the foundation plans of the dam, and while this entailed some additional expense, it would not have caused serious delay had an adequate supply of labor been available.

North Bay

The lighting franchise of the North Bay Light, Heat and Power Co., expired on Sept. 13th, 1911, and by resolution of the Municipal Council the Commission was requested to investigate conditions and advise the town in the matter of purchasing the plant of the above Company and installing a municipal distribution system. In connection with this scheme, the Commission was also asked to recommend the best source from which the municipality could obtain power for the operation of this system. In 1908 the Commission submitted a report to the municipality dealing with the development of power at Smoky Falls on the Sturgeon River and the transmission of same to North Bay. Smoky Falls, still being considered the best available source of power for the municipality, the estimates of the 1908 report were revised to suit present conditions and the cost of low tension power delivered in North Bay was ascertained, the quantities of power upon which the prices were based being the full capacity and half capacity of the site respectively. (See Report No. 3 appended hereto).

Wingham

Under date of November 12th, 1910, the Council of the Municipality requested the Commission to report upon the possibility of developing power on the Maitland River for the use of the town. A preliminary investigation showed that the only site worth considering was located about six miles from the town in the neighborhood of the Curry Farm. No natural head existed at this point and in order to investigate the merits of the scheme a survey was necessary. This survey was made in November, 1911, and a plan prepared showing the amount of land which should be affected by back water in the event of developing a 15 ft. head. This plan was forwarded to the municipal authorities under date of May 12th, 1911, with a letter stating that further information in connection with the scheme of development could not be given until some data had been collected during the coming summer in connection with the minimum flow of the stream. Discharge measurements were made at the proposed site of development from June till December, 1911, and the final Report No. 4, appended hereto, was submitted under date of Jan. 2nd, 1912.

Parry Sound

The Municipality of Parry Sound has a hydro-electric plant upon the Seguin River which at the present time is carrying a load that requires the full minimum flow of the stream. A smelting industry is now being established in Parry Sound which will require more power than the municipality is now able to develop, and under date of January 8th, 1912, the Municipal Council forwarded a resolution to the Commission asking that the power conditions in Parry Sound be investigated with a view to recommending the best means of augmenting the present supply of Hydro-Electric power. As negotiations with the promoters of the smelting industry were in progress at the time, the municipality wished to have a report prepared with as little delay as possible. A preliminary investigation was therefore made at once and sufficient information was obtained to demonstrate that the power capacity of the Seguin River could be materially augmented through the development of an artificial storage system in the upper water-shed. The Provisional Report No. 5 hereto appended was submitted, covering these preliminary investigations, and in June, 1912, a reconnaissance survey of the Seguin River water-shed was made. This survey in most cases confirmed, and in some cases bettered, the findings of the Provisional Report and demonstrated beyond reasonable doubt that the development of a storage system in the Seguin River water-shed would materially augment the power capacity of the stream. (See Report No. 6, appended hereto).

Algoma Power Co.

In April, 1912, the Algoma Power Company submitted plans covering the development of a comprehensive scheme for artificial storage in the water-shed of the Michipicoten River. In addition to the development of the storage in the water-shed of the Michipicoten River this scheme contemplated the diversion of the run-off of the water-sheds tributary to Oba Lake and Missinaibi Lake into Michipicoten waters. These two lakes are at the present time tributary to, and form part of, the water-shed of the Kenogami and Missinaibi Rivers respectively.

It was held that the Province would not incur any serious risk in approving the outline of the scheme for conservation in the Michipicoten water-shed, as the interests of the Province could be protected sufficiently by requiring the company to submit all construction plans for approval, and taking such steps as might be necessary to ascertain whether or not the work of construction was being carried on in a proper manner. In the matter of the proposed diversion of the Kenogami or Missinaibi waters it was held that this should not be allowed as a matter of principle, and not at any rate until such time as the Algoma Power Company could show evidence that the additional power to be derived from such diversion was urgently required.

Markham

In April, 1912, the Council of the Village of Markham requested the Commission to report upon the advisability of purchasing two power sites on Rouge Creek in the vicinity of the village, and as to the possibility of developing these two power sites either separately or in combination for the requirements of the municipality. The village at the present time owns a steam plant which supplies the lighting load, and through the purchase of the two dams above mentioned they proposed to reduce the cost of producing power for municipal purposes and also hoped to have a small quantity of industrial power available for sale. The municipality was informed at the time of the preliminary investigation that the Com-

mission could not take the responsibility of rendering an immediate decision owing to the entire lack of reliable information as to the power capacity of the stream, and that for this reason it would be necessary to carry on an investigation during the coming summer in order to obtain necessary data on which to base a report. During the summer a survey was made in order to ascertain what back water damage would be involved by concentrating the total head at the lower dam, and discharge measurements were taken at regular intervals during the summer and fall. Report No. 1, appended hereto, sets forth the conclusions arrived at as a result of these investigations.

Alliston

In the spring of 1912, the Municipal Council of Alliston made application to the Commission for advice as to the purchase of the privately owned power plant which at the present time is supplying light in the municipality. During the spring flood of 1912, the Company's dam was practically destroyed, as was also the concrete storage tank which was used for gathering the water supply of the municipality from two artesian wells on the bank of the river. The Town wished the Commission to recommend some course of action immediately, as it was necessary to repair the water works system without delay, and it was not thought desirable to do any work which would require to be undone or would add in any way to the expense necessary to consolidate the water and electric utilities in the event of the latter being purchased. A method of procedure was outlined by which the town could permanently install a system of suction and discharge mains without in any way affecting the cost of consolidation at a later date, and having agreed to this the Municipality was willing to wait until sufficient information had been collected with regard to the private company's plant to justify a final report. Since that time steps have been taken to obtain flow measurements and data in connection with various available sources of power in the vicinity of the town.

Smith's Falls

At the request of the Council of the Municipality of Smith's Falls the engineers of the Commission made an investigation of the existing conditions in the Municipality in connection with the extent of the available market for Hydro-Electric power and the source from which such power could best be obtained. The situation in Smith's Falls was complicated owing to the existence of two independent companies which were supplying light, heat and power to the Municipality in competition with each other. Both these companies have power developments on the Rideau Canal and both use auxiliary steam. Report No. 8, appended hereto, outlines the power situation as regards the Rideau Canal and also submits recommendations as to where additional power might be obtained if required.

Meaford

During the spring flood of 1912 the dam of the Georgian Bay Power & Milling Co., on Big Head Creek near Meaford was partially destroyed and the company submitted a proposition to the Municipality for the purchase of the entire system. The Municipality applied to the Commission for advice, and as it was necessary to take some action immediately the Municipality was advised to ask for a six months' option on the property in consideration for which they would put such temporary repairs upon the dam as would enable the plant to resume operation. It was thought by the time this option had expired that the

Commission would be in a position to advise the Municipality as to whether or not it would be in its interests to accept the company's offer. The Municipality took no action in the matter and the proposition was abandoned. The company subsequently obtained a franchise for the distribution of light and power in the Municipality and put the necessary repairs upon the plant at their own expense. Report No. 9, appended hereto, deals with the physical condition of the plant and discusses the advisability of the purchase by the Municipality.

Chesley

Under date of March 31st, 1911, a Resolution of the Municipal Council of Chesley was forwarded to the Commission requesting a report as to the commercial feasibility of developing power for municipal purposes on the North branch of the Saugeen River in the vicinity of the town. The Commission's engineers accordingly made certain surveys and for some months carried on investigations with a view to ascertaining whether the minimum flow of the river could, with the maximum head available, supply a sufficient quantity of power to meet the requirements of the Municipality at reasonable cost. Report No. 10, appended hereto, was submitted to the Municipality in this connection, but owing to the unusual flow conditions which appeared to exist, this report was submitted subject to correction, and periodical flow measurements are still being taken in order to ascertain whether or not this report sets forth the true conditions as regards minimum flow.

Dufferin Light & Power Co.

This company was organized to develop power and transmit and distribute the same to the Municipalities of Orangeville, Shelburne, Dundalk and neighboring municipalities: When the matter came before the Commission the company had a partially completed generating plant on the Pine River about three miles from the village of Horning's Mills. Financial difficulties had caused a suspension of work on this development and it was thought advisable to investigate the scheme in order to ascertain whether or not it would be possible for the Commission to take over the generating plant and lines of the company and supply power to the above mentioned municipalities in the same manner in which it is being supplied at the present time by the Niagara System.

At the time of examination the company had under construction a large earth-fill dam designed to provide a pondage area of about 100 acres. The water was to be carried to the wheels through about 1,200 ft. of wood flume, and 2 300-h.p. wheels were at that time installed which are intended to operate under an effective head of about 125 ft. The minimum flow of the stream is such that the continuous 24 hour capacity of the plant would not be more than 250 h.p. The company's financial difficulties were finally solved when its assets were put up at auction and were bought in by a combination of the original bond-holders, and immediately following the purchase a contract was let for the completion of the development.

Owing to the small quantities of continuous power available, it was clearly not a proposition which the Commission could handle to advantage, as the only means of deriving an adequate revenue from such a restricted output was to confine the market exclusively to the sale of light and restricted hour power in very small units in order that the fullest possible advantage could be taken of a peak load capacity which is made available by reason of the combination of a high head and the comparatively large capacity of local pondage.

County of Ontario

In June, 1912, a number of the municipalities in the County of Ontario made application to the Commission to be supplied with Hydro-Electric power. A preliminary investigation by the Commission in response to this application indicated that it might be feasible to supply the requirements of this territory from a development upon the Severn River about three miles from the Village of Washago. This power site, which is known locally as Waddell's Falls, belongs at the present time to Adam Dobson, Esq., of Cannington. The head obtainable will vary from 11 to 15 ft. according to the stage of flow, and under minimum conditions this site should be able to supply from 750 to 1,000 h.p., which amount of power should be quite capable of supplying the requirements of the County of Ontario for some time to come. A cursory examination of the site showed topographical conditions to be such that fairly cheap development was possible.



Waddell's Falls.

and during the summer a detailed survey was made to enable the engineers of the Commission to lay out a scheme of development and make estimates of cost. Periodical measurements of flow are also being made and gauges have been established at the site in order to keep a record of the variations of natural head. In the near future it will therefore be possible to prepare estimates and plans of a sufficiently definite nature to indicate whether or not the scheme is economically feasible.

Burnt River

The storage capacity of the lakes in the upper watershed of the Burnt River is being developed by the Dominion Government in connection with the Trent Valley Canal projects. As the development of this storage will have a tendency to produce uniform flow conditions in the Burnt River, it was thought advisable to ascertain if there were any power sites on the river which might at some future time be of use to the Commission. Report No. 11, appended hereto, deals with this matter in a preliminary way.

Dog Lake Storage Dams

The construction of the Dog Lake Storage Dams was completed in March, 1911, and since that time they have been in active service. The level of Dog Lake was drawn down very low for purposes of construction so that in the spring of 1911 the dams were called upon to do their full duty. In March, 1912, however, the water was at a stage about 1 ft. above normal summer level and the spring flood put about 2 ft. of water on the crest of the overflow dam and required a discharge of about 4 ft. in depth over the stop logs in the regulating dam to hold the water to the maximum flood level. It was anticipated that the erosive action of the falling water might do some damage to the sluice aprons between the piers, and in September, 1912, one of the engineers of the Commission inspected the dams to ascertain what damage, if any, had been done. No evidence of injury to the apron by the action of water or ice was found. A few small leaks were discovered through unclosed fissures in the bed rock, but none were of sufficient size to give cause for anxiety. The gate rods on the swivel gates were too light for the pressure to which they were subjected and some of them were bent out of line between guides. This causes considerable leakage through the gates but otherwise does no damage. As regards the rock-fill dams there has been considerable settlement of the fill on both sides of the core wall, but as both dams are quite water-tight, and as the fill was placed with an ample factor of safety this condition is not serious, as it affects only the appearance of the structure. Up to the present time the dams have shown themselves quite capable of fulfilling the requirements for which they were designed.

Mountain Lake

A fair market for power exists in the Town of Picton, and the Trent River is the nearest available source from which any considerable quantity of power could be obtained. The Town of Picton is so situated that the transmission costs from the nearest available source of power on the Trent River would be high, and for this reason it was considered advisable to ascertain if there was any possibility of obtaining an adequate supply of power from some more accessible source. The Mountain Lake site was examined with this object in view. This lake is situated at the top of a high hill on the southern shore of Picton Bay about 4 miles from the Town of Picton. The water-shed tributary to this lake is insignificant and the quantity of power which is being developed at the present time by the owners of the property proves beyond a doubt that this lake is fed from some underground source of supply. Before reaching any decision as to the adaptability of this site for the requirements of the Town of Picton it was necessary to form some idea of the magnitude of this source of supply. An experiment was, therefore, devised and carried out during the month of September, which is described in Report No. 12, hereto appended, together with the conclusions derived.

Thornbury

During the spring flood of 1912 a dam on the Beaver River in the Village of Thornbury, jointly owned by Messrs. Andrews Bros. and Parkinson, was destroyed. Andrews Bros. used a portion of their share of the power to supply light to the village and since the destruction of the dam the village has been without electric service. During the past summer the village purchased the two-thirds interest of Andrews Bros. in this power and the two parties are proposing to build a new dam on or near the site of the old structure to ultimately control a head of about 25 ft. The Municipal Council applied to the Commission for assistance in connection

with the scheme and it was found that the parties were proposing to proceed at once with the construction of a masonry dam. Such preliminary plans as were available indicated that the dam was designed for a solid rock foundation, whereas the foundation material available at the proposed site is a thick stratum of blue clay overlying hardpan. The members of the Municipal Council were informed that it was not practicable to build a dam of this type in Thornbury without very material modifications in the design. They were also informed that it would be quite impossible to make the necessary surveys and proper plans in time to permit of construction during the fall of 1912. In view of this it was decided that if any immediate action were taken nothing more would be done than to carry out such temporary repairs to the existing dam as would ensure fairly efficient operation of the machinery at present installed during the coming winter.

Sault Ste. Marie

Up to the present time the water and light utilities in the Town of Sault Ste. Marie have been owned and operated by the Tagona Water and Light Co., which is a subsidiary company of the Lake Superior Corporation of Sault Ste. Marie. The water and light franchises expire in the fall of 1914. Under these franchises the Municipality has the option of renewing the same for a further term of years or of purchasing the water and light systems at the expiration of the present term. Under date of June 3rd, 1912, a Resolution of the City Council was forwarded to the Commission, asking to have all conditions enquired into with a view to advising the Municipality as to what steps to take when the time came to consider the renewal of the franchises and the matter of purchasing the water and light systems. The Lake Superior Corporation has recently undergone a re-organization and at the present time the efforts of the management are directed almost altogether towards the development of their steel and pulp industries, and the affairs of the Tagona Water and Light Co. have, up to the present time, received only casual consideration. On this account, and also owing to the fact that the franchise will not expire for two more years, the Municipality was advised to wait until the officers of the company were in a position to either make or receive a definite proposition in connection with the water and light utilities. There is considerable anxiety felt in the city in connection with the water supply, as the intake is so located that there is great danger of pollution, and this condition will become more serious as the company's industries extend. The Municipality was advised to at once employ the services of an engineer to report upon the danger of pollution by reason of the present location of the intake and to advise the Municipality as to what steps, if any, would be necessary to ensure a supply of uncontaminated water. The Municipality was advised to obtain this report as soon as possible, as the conclusions arrived at would have an important bearing upon future negotiations with the Tagona Water and Light Co. in connection with the purchase of their waterworks system.

Fort Frances

Under date of June 11th, 1912, the Municipal Council of Fort Frances forwarded a Resolution to the Commission, asking for a report upon the possibility of obtaining the industrial power in commercial quantities from a proposed development at Foot Print Rapids on the North-west River, this site being some 20 miles from the town. During the month of September a preliminary survey was made of this site and information obtained which appeared to indicate that the

site would not have sufficient continuous power capacity to warrant development, and a survey of another possible site upon Big Turtle River was made in order that an alternative proposition might be submitted. All information necessary for a preliminary report is now available.

Lake of the Woods

Under date of May 13th, 1912, the Commission received a copy of a reference sent by the United States Department of State to the Government of Canada, as quoted hereunder:—

“I have the honor to inform you that at the joint request of the Government of the United States and of the Government of the Dominion of Canada, under the provisions of Article No. 9 of the Treaty of Jan. 11th, 1909, between the United States and Great Britain, the questions or matters of differences set forth below which have arisen between them involving the rights, obligations or interests



Kettle Falls, International Channel.

of each in relation to the other, or to the inhabitants of the other, along their common frontier between the United States and the Dominion of Canada, are hereby referred to the International Joint Commission for examination and report upon the facts and circumstances of the particular customs and matters referred to, together with such conclusions and recommendations as may be propounded.”

The questions so referred are as follows:—

1. “At what level is it desirable to maintain the surface of the Lake of the Woods during the different seasons of the year in order to secure the most advantageous use of its waters on each side of the boundary for domestic and sanitary purposes, for navigation and transportation purposes, for fishing purposes, for power and irrigation purposes, and also in order to secure the most advantageous use of the shores and harbors of the lake and of the waters flowing into and from the lake?”

2. “If the level recommended in answer to Question No. 1 is higher than the normal or natural level of the lake, to what extent, if at all, would the lake, when

maintained at such level, overflow the low-lands upon its southern border or elsewhere on its border, and what is the value of the lands which would be submerged?"

3. "In what way or manner, including the construction and operation of dams for other water works at the outlets and inlets of the lake or otherwise, is it possible and advisable to regulate the volume, use and outflow of the waters of the lake so as to maintain the level recommended in answer to Question No. 1, and by what means or arrangement can the proper construction and operation of regulating works, or system or method of regulation, be best secured and maintained in order to ensure the adequate protection and development of all the interests involved on both sides of the boundary, with the least possible damage to existing rights and interests, both public and private, which may be affected by maintaining the proposed level?"

The above reference was submitted by the Federal Government to the Province of Ontario in view of the magnitude of the interests which the Province had involved, and the Province immediately signified its intention of giving the matter serious consideration. In July the Commission's Hydraulic Engineer accompanied the Consulting Engineer of the Canadian Section of the International Joint Commission upon an inspection trip through Rainy Lake, Rainy River, Lake of the Woods and the Winnipeg River. At the conclusion of this trip a joint memorandum was prepared outlining an extensive scheme of engineering procedure which must necessarily be carried out in order to properly satisfy the queries of the above reference. It was proposed that the engineer of the Joint Commission, an engineer of the Water Powers branch of the Dominion Department of the Interior and the Hydraulic Engineer of the Power Commission should co-operate in the matter of obtaining this information, which information was to be mutually exchanged. Following this plan the engineers of the Manitoba Hydrographic Survey, with headquarters at Winnipeg, were instructed to proceed immediately with the collection of such data as they had access to, and the other parties to the agreement were deputed to obtain certain items of necessary information from various departments of the Federal and Provincial Governments.

In September, 1912, the International Joint Commission held official hearings at International Falls, Minn.; Warroad, Minn.; and Kenora, Ont., in connection with the above reference. A large volume of local evidence was taken at these hearings, but it was understood that the Commissioners had no intention of employing the evidence obtained for the purpose of rendering an immediate decision, and the Chairmen of both sections of the Commission made it plain that it was their intention to wait for the report of the engineers before formulating any policy in connection with the regulation of the waters of the Lake of the Woods water-shed.

Bancroft

Under date of March 11th, 1912, the Municipality of Bancroft forwarded a Resolution to the Commission requesting a report concerning the proposed purchase of a power site on the York River within the limits of the village. This power had been used for some years as a mill power, but last January the two woollen mills, the machine shop and the electric light plant were destroyed by fire. One of the woollen mills has since been rebuilt but no action has been taken in regard to the re-establishment of the other industries. In August, 1912, a survey of this power site was made by the engineers of the Commission and a report covering the whole question of the supply of power to the Municipality is being prepared.

Kearney

Under date of February 17th, 1912, the Council of the Municipality of Kearney forwarded a Resolution to the Commission asking for a report upon the possibility of developing power at Brooke's Falls on the Magnetawan River for the use of Kearney and neighboring municipalities. The power site was visited in September, 1912, and the topographical conditions at the site, together with the market possibilities of the Village of Kearney, indicated that the proposition merited some further consideration. A survey of the power site is now being made and a final report will be submitted to the parties interested at the first opportunity.

Grand River

Through the influence of drainage, cultivation and deforestation the flood flow of the Grand River for some years past has been steadily increasing in volume and destructiveness. Consequent upon this steady increase in flood discharge the



Brooke's Falls.

minimum flow of the stream has been as steadily decreasing, and the Grand River is gradually assuming the characteristics of a torrential stream. For some time the municipalities located along the course of the river have been agitating for the construction of storage works in the Grand River water-shed for the joint purpose of ameliorating flood conditions and for increasing the power capacity of the river under conditions of minimum flow. The topographical features of the Grand River water-shed are such that the creation of storage reservoirs of adequate capacity would entail very great expense, primarily through the lack of natural storage basins, and secondly through the lack of accessible solid foundation material for dams. During the past summer a reconnaissance survey has been made of the whole water-shed of the Grand River above Brantford, Ontario, and all points where storage dams might possibly be placed have been located in a general way. These locations are now being examined in detail, and if this preliminary survey indicates that material benefit is to be derived from the creation of storage works, a detailed survey will be recommended, upon which to base a definite scheme of conservation.

Thessalon and Bruce Mines

Under date of July 2nd, 1912, these Municipalities requested a report from the Commission upon the possibility of developing power on the Mississauga River for the joint use of the municipalities. The Fifth Hydraulic Report of the Commission contains an estimate of the cost of delivering certain stated quantities of power to Thessalon and Bruce Mines from Slate Falls on the Mississauga River. Subsequently in 1908 the Commission submitted a report to the Municipality of Bruce Mines dealing with the possibility of delivering certain quantities of power to the Municipality from a development at Squaw Chute on the Mississauga River. In view of the above it was not considered advisable to prepare any more preliminary estimates for these municipalities, but rather to make a canvass of the actual



Saugeen River. Bridge Station.

existing market, and if the demand for power was sufficient to ensure a reasonable unit cost for delivered power the Commission would take steps to lay out a definite scheme of development and transmission for the service of these municipalities.

Hydrographic Surveys

During the past year an effort has been made to obtain some knowledge of the regimen of some of the more important rivers in the Province, and to this end two members of the Commission's engineering staff have been almost continuously employed on stream measurement. At the present time 17 rivers are under observation and monthly measurements of flow are made at one or more points on these rivers, but only in some cases are daily records of water level being kept. The record of all stream measurements to date will be found in tabular form in the appendix of this report.

It may be noticed that in many cases the relation between gauge-height and discharge is not such as to produce a smooth rating-curve. This is due primarily to the fact that it has been necessary in many cases to use a wide, shallow and frequently a rough cross-section for purposes of measurement, and a small variation in gauge-height on such a section will produce a large variation in discharge, which the nature of the section makes it difficult to measure accurately. The second reason is that the water-levels have in most cases been determined by various means from reference bench-marks instead of from direct reading gauges. The latter element of inaccuracy will be largely eliminated by the proper installation of gauges from which daily records of water-level can be derived. Owing to the unsatisfactory operation of the ordinary type of wooden staff-gauge, the work of



South River, Bridge Station.

installing permanent gauges has been held up pending the receipt of information from the Water Resources Branch of the U. S. Geological Survey, and the Water Power Branch of the Dominion Department of the Interior. The former organization has introduced a cast iron, and the latter an enamelled steel gauge to take the place of the wooden type, and advantage will be taken of their experience in carrying on this very important branch of hydrographic study.

These records are an outcome of the large number of requests received from various municipalities throughout the Province for reports on the possibility of developing local water-powers for municipal needs. The Commission was obliged to meet a large number of these requests either by submitting a preliminary report based upon assumptions of an approximate and unsatisfactory nature, or by holding up the report for a year or more to allow time for the collection of a reasonable amount of dependable data relative to the case under consideration. The

hydrographic work originally undertaken with this object in view has been continued with the primary object of confirming or disproving, as the case might be, the conclusions set forth in the above mentioned reports. A number of rivers have also been added to the list in anticipation of enquiries to be received from various municipalities for which they are the natural source of power.

In conclusion it may be said that the proper administration of the water resources of the Province depends upon a definite knowledge of the value of all water powers which are capable of commercial development, either now or at some future time. In appraising the value of these water powers some knowledge of the flow characteristics of the streams upon which they are located is absolutely essential. For this reason alone, if for no other, any expense necessary for the proper collection and compilation of hydrographic records is amply justified.

REPORT NO. I.**Maitland River**

The natural source of power for the County of Huron is the Maitland River, which rises on the height of land between Lake Erie and Georgian Bay, and flows into Lake Huron through the Town of Goderich. The water-shed of this river is about 950 sq. miles in extent, and is largely drained and deforested. As a result, the natural flow characteristics have been destroyed, and the water-shed of the Maitland River, in common with the water-sheds of other rivers in the south-western peninsula, has an uncontrolled run-off which produces heavy Spring freshets, and a consequent low discharge during the late Summer and early Autumn periods.

The abnormal flow characteristics of the Maitland River to a large extent discount its value as a source of power, the more so by reason of the fact that its water-shed is almost entirely lacking in natural storage basins. The country throughout the whole area is cleared and for the most part cultivated, so that the land damages and construction costs in connection with the establishment of remedial works of sufficient magnitude to adequately offset the effects of drainage, cultivation and deforestation would be prohibitive. In view of this fact, the power possibilities of the Maitland River, considered as an independent source of continuous power, can only be discussed on the basis of minimum flow, in conjunction with such advantages as can be derived from local pondage.

The total drop of the Maitland River from headwaters to mouth is approximately 900 feet, but the topography of the water-shed is such that no natural heads of any consequence exist, the gradient of the river-bed being fairly uniform and the average velocity high. As a result, power can only be developed by diversion or by the creation of an artificial head, or by a combination of both methods. This condition, in conjunction with the poor run-off regulation, will tend to make power development expensive, and to increase the annual cost of power.

The above general facts and the general conclusions deduced therefrom, comprised practically the sum total of all hydraulic data in connection with the Maitland River which could be safely used when the Huron County scheme first became a definite issue. The proper consideration of the scheme, therefore, necessitated at the outset a systematic investigation of the flow characteristics of the Maitland River. Owing to the desire of the County authorities to have a report at the earliest possible date, it was decided to carry on the hydraulic investigations for one year only, the understanding being that any conclusions arrived at by the end of that period should not be considered as final, but merely as indicating reasonable possibilities. The extent to which this end was attained will now be considered.

Early in May, 1911, a gauging station was established at Ben Millar, and since that date monthly measurements of flow have been made, and in connection with these measurements daily records of water level were also obtained.

The records obtained up to the present time are tabulated hereunder:—

Date of Measurement.	Discharge.	Water Level.	Electric h p. per foot of head.
May 19, 1911.....	979 cu. ft per sec.	14.27	82 h.p.
June 14, 1911.....	549 " "	13.80	46 "
July 20, 1911.....	305 " "	13.60	25 "
Aug. 11, 1911.....	170 " "	13.37	14 "
Sept. 18, 1911.....	172 " "	13.39	14 "
Oct. 16, 1911.....	257 " "	13.55	21 "
Nov. 20, 1911.....	4,068 " "	15.34	340 "
Dec. 22, 1911.....	1,280 " "	14.30	107 "
Jan. 27, 1912.....	752 " "	Ice	63 "†
Feb. 29, 1912.....	506 " "	Ice	42 "
Mar. 28, 1912.....	2,116 " "	Ice	176 "
April 6, 1912.....	41,000 " "	20.26	3,420 "
April 7, 1912.....	65,000 " "	21.60	5,420 "
April 26, 1912.....	1,437 " "	14.40	120 "
May 30, 1912.....	5,815 " "	16.13	485 "
Estimated extreme minimum on August 30, 1911	120 " "	13.18	10 "

The last item in the above table is inserted by reason of the fact that there was no actual measurement of flow taken when the water-level reached its lowest stage of 13.18 at Ben Millar, as evidenced by the daily records. The estimated discharge of 120 cubic feet per second is considered to be a generous one and is to be considered the minimum volume of flow so far recorded.

The flow characteristics of the river during the term covered by these records may be summarized as follows:—

(1) The minimum run-off of the water-shed was about .125 cubic feet per second per square mile.

(2) The maximum run-off of the water-shed was about 68 cubic feet per second per square mile.

(3) The ratio of minimum to maximum flow was as 1 to 543.

(4) The low stages of flow occurred during the months of July, August, September and October.

(5) The intermediate stages of flow occurred during the months of November, December, January, February, March and June.

(6) The high stages of flow occurred during the months of April and May.

These records also indicate:—

(1) That the river is extremely sensitive to the effects of rain-fall.

(2) That the river is seriously deficient in ground storage capacity.

(3) That deforestation, cultivation and drainage have so accelerated the run-off that the ground storage of the water-shed can never be filled to its natural capacity. The falling off in discharge from 65,000 sec. ft. on April 7th to 1,437 sec. ft. on April 27th plainly indicated the existence of this condition.

The records so far obtained seem to indicate, therefore, that the discharge of the Maitland is mainly dependent upon surface run-off, and the power capacity of the river from month to month will vary almost in proportion to the monthly precipitation on the tributary water-shed. This contention is borne out by the evidence of the May discharge. On May 19, 1911, there was 82 h.p. per foot of head at Ben Millar, with the May precipitation slightly below normal. On May

30, 1912, there was 485 h.p. per foot of head at Ben Millar, with the May precipitation 300 per cent. above normal.

This intimate relation between rain-fall and power capacity indicated the necessity of determining what relation the monthly precipitation during the year covered by the records bore to that of previous years, and precipitation records from all meteorological stations located in or adjacent to the Maitland River watershed were obtained with this object in view. These records proved to be so disconnected and otherwise unsatisfactory that an exhaustive analysis of the same would have been useless. The figures relating to precipitation have, therefore, a low degree of accuracy, and are submitted only because of the impossibility of procuring more reliable data.

The figures in the table below were compiled from precipitation records taken at Goderich for 36 years, at Clinton for 8 years, at Mount Forest for 7 years, at Stratford for 16 years, at Lucknow for 27 years, and at Listowel for 10 years. The first column contains the average of all records of monthly precipitation to date, and the second column contains the precipitation for the corresponding months during which the flow characteristics of the Maitland were being investigated.

General average monthly precipitation for all years.	Monthly precipitation during months of measurement.	Difference—	
		Above average.	Below average.
January. 3.55 inches	(1912) 4.70 inches..	1.15	.....
February, 2.95 ..	(1912) 2.12 ..		0.83
March, 2.62 ..	(1912) 1.59 ..		1.03
April, 2.15 ..	(1912) 2.10 ..		0.05
May, 2.93 ..	(1911) 2.71 ..		0.22
June, 2.91 ..	(1911) 2.02 ..		0.89
July, 2.91 ..	(1911) 1.90 ..		1.01
August, 2.47 ..	(1911) 2.59 ..	0.12	.....
September, 2.86 ..	(1911) 3.71 ..	.85	.....
October, 3.39 ..	(1911) 4.45 ..	1.06	.....
November, 3.49 ..	(1911) 4.33 ..	.84	.....
December, 3.48 ..	(1911) 2.13 ..		1.35

It will be seen from the above that the monthly precipitation during the year of investigation fell below the general average during the months of February, March, April, May, June, July, and December, and was above the general average during the months of August, September, October, November and January.

While, as previously stated, the reliability of the precipitation data is questionable, several deductions can be drawn from the above figures which have a certain value.

These deductions may be itemized as follows:

1. The average precipitation for the three winter months of December, January and February from the above table is 9.98 inches. The precipitation for this period in 1910-11 was 9.46 inches, or 0.52 inches below the average. The precipitation for the corresponding period in 1911-12 was 8.95 inches or 1.03 inches below the average. It is to be inferred from this that there was a greater volume of Spring run-off during the Spring of 1911 than there was in the Spring of 1912. This condition should reasonably be expected to produce a greater Summer flow in 1911 than in 1912, on account of the fuller replenishment of ground storage.

2. The average precipitation for the three months of March, April and May is 7.70 inches. The precipitation for this period during 1911 was 8.21 inches, and for the same period in 1912 was 10.54 inches, being therefore 0.51 inches above the average for 1911, and 2.84 inches above the average for 1912. Under these conditions the tendency would be to produce a Spring discharge in the Maitland slightly above the average in 1911, and considerably above the average in 1912. This should also have a tendency to make the Summer flow for 1911 less than the Summer flow for 1912, but slightly more than the average.

3. The average precipitation for the three Summer months of June, July and August is 8.29 inches. The precipitation for the Summer months of 1911 was 6.51 inches, or 1.78 inches below the average. The tendency would, therefore, be for the production of a Summer discharge below the average during 1911.

4. The average precipitation for the three Autumn months of September, October and November is 9.74 inches. The precipitation during the Autumn months of 1911 was 12.49 inches or 2.75 inches above the average. The tendency of this condition would be to produce an Autumn discharge greater than the average in 1911, and also to produce a discharge greater than the normal during the Winter months of 1911 and 1912.

Applying these deductions to the flow characteristics found by measurement during the years of 1911 and 1912, the following conclusions are derived:—

1. The Winter precipitation for 1910-11 was slightly less than the average but greater than the Winter precipitation for 1912, the tendency being therefore to produce a Summer flow in 1911 slightly above the average, and greater than the Summer flow for 1912.

2. The Spring precipitation for 1911 was slightly greater than the average but much less than the Spring precipitation for 1912, the tendency being, therefore, to produce a Spring run-off and consequently a Summer flow, slightly above the average in 1911, but less than would obtain in 1912.

3. The Summer precipitation for 1911 was considerably below the average, the tendency therefore being to produce a Summer flow less than the average.

4. The Autumn precipitation for 1911 was considerably above the average, the tendency being to produce an Autumn and Winter flow greater than the average.

As regards Summer flow in 1911, we have therefore two factors, the Winter and Spring precipitation and the Spring run-off tending to make it a maximum through the effect of ground storage, and one factor, the Summer precipitation, tending to make it a minimum by reason of a Summer run-off which was below the average. Inasmuch as surface flow is assumed to be the governing factor as regards the discharge of the Maitland River, it may be reasonably stated that the Summer discharge for 1911 was really below the average, and also that the Summer discharge for 1912 may be expected to be greater than that of 1911 and possibly above the average.

In the matter of Autumn and Winter flow, that shown by measurement during 1911 and 1912 is probably much greater than can ordinarily be expected, as the Autumn precipitation was so much in excess of the average. Smaller values for discharge are to be anticipated during the coming Autumn and Winter if, as seems probable, the precipitation more closely approaches the average.

To conclude this portion of the argument it may be said that, as regards the flow characteristics of the Maitland River, the outstanding features are, first, its sensitiveness to the effects of rain-fall, and, secondly, its dependence upon sur-

face run-off as against ground storage. Therefore, while the conclusions above set forth may cover the general behaviour of the river over a cycle of years, the occurrence of abnormal or unusual precipitation phenomena during some particular season may give rise to temporary conditions of flow, the nature of which it is not now possible to anticipate.

The initial decision that the Black Hole power-site was the best suited to the requirements of the Commission and the County of Huron is amply justified by the results of the subsequent investigation. The minimum capacity of 10 h.p. per foot of head proves the necessity for developing under the highest possible head that topographical conditions will permit and that capital cost will justify, and also for choosing a site providing the best facilities for pondage in order to make peak load and daily storage capacity a maximum. The Black Hole site, with an operating head of 80 feet, and something over 700 acres of pondage obtainable, fulfils the required conditions more satisfactorily than any other possible location on the lower river and has been considered to the exclusion of all others.

Referring back to the table of discharge measurements, the power capacity of the Black Hole site, under an 80 foot head, upon the various dates of flow measurement, would be as follows:

Date of measurement.	Continuous 24 hour power capacity.	Probable combined 10 hour and 24 hour capacity.
May 19, 1911	6,560 E.H.P.	10,000 E.H.P.
June 14 "	3,680 "	5,800 "
July 20 "	2,000 "	3,200 "
Aug. 11 "	1,120 "	1,800 "
Aug. 30 " (minimum)	800 "	1,200 "
Sept. 18 "	1,120 "	1,680 "
Oct. 16 "	1,680 "	2,400 "
Nov. 20 "	27,200 "	38,000 "
Dec. 22 "	8,560 "	12,000 "
Jan. 27, 1912	5,040 "	7,100 "
Feb. 29 "	3,360 "	4,700 "
Mar. 28 "	14,080 "	21,000 "
Apl. 26 "	9,600 "	15,400 "
May 30 "	38,800 "	62,000 "

Considering the above figures in connection with the conclusions derived from the study of precipitation, the following general statements with regard to power capacity would seem justifiable:

1. The Spring flow will, under all circumstances, produce power in excess of economic installed capacity.

2. The Summer flow was probably close to the minimum during 1911 and a larger Summer power capacity may be anticipated under average conditions.

3. The Autumn precipitation and late Autumn flow was considerably in excess of the average, so that the power capacities established by measurement during the Autumn and Winter of 1911-12 cannot be considered normal, and conditions much less favorable should frequently obtain.

Considering the power capacities in connection with the market demand, it is evident that even under average conditions, the Summer power capacity of the Black Hole site will not be sufficient to carry the Huron County load, so that some portion of it will always have to be carried by Niagara during the Summer season, and probably at times in the early Autumn. Also while the Autumn and Winter capacity may at all times be sufficient to carry the Huron County load, it is by no means certain that sufficient surplus capacity will be available to supply auxiliary power to the Niagara System. As the Maitland River will be obliged to furnish power to the Niagara System during the Autumn and Winter months to compensate for power obtained from Niagara during the Summer, the serious nature of this condition is evident: for unless the Maitland River can furnish auxiliary power during the peak load period when it is required, the Summer power supplied by the Niagara System will have to be paid for by the County of Huron.

The projected scheme of development at the Black Hole involves the creation of an artificial head and also a diversion. It is proposed to build a dam of sufficient height to back the water up to Ben Millar bridge and to further increase the head by diverting the flow across the neck of a sharp bend in the river. The additional head obtained by this diversion will be 5 to 15 feet, depending upon the relative locations of the dam and power-house, and the total average head available would be about 80 feet.

The largest item of capital cost in connection with this development is the dam construction, and before the flow characteristics of the river had been investigated it was thought that earth fill construction could be used for the main dam, but the abnormal flood flow conditions evidenced by this Spring's measurements demonstrated the practical impossibility of utilizing this type of construction at the Black Hole. It was therefore necessary to largely increase such preliminary estimates as had been made to provide for a masonry dam, and the hollow reinforced type of construction was adopted as being the cheapest and most economical after giving proper consideration to safe and efficient handling of ice and flood-water.

In a general way it may be said that the conditions relative to development at the Black Hole could not well be more unfavorable, as the low water power conditions are such as to make the revenue-producing power capacities very small, while the flood conditions are such as to call for an abnormally heavy capital expenditure for dam construction and permanent works. The annual cost of generated power is therefore affected by reason of the fact that the revenue from power generated at low stages of flow must be sufficient to cover the heavy capital charges and maintenance costs arising out of the necessity for handling an abnormal flood discharge.

Two estimates of the cost of development at the Black Hole have been made, one for 2,000 h.p., and one for 6,000 h.p. installed capacity. The 2,000 h.p. estimate represents the cost of developing the Black Hole site, as an independent source of power, to the limit of dependable 10 hour capacity. The 6,000 h.p. estimate provides surplus installed capacity for the purpose of using the higher stages of flow to supply auxiliary power to the Niagara System.

The 2,000 h.p. estimate shows a capital cost of \$587,000, and a total annual charge of \$45,500. The 6,000 h.p. estimate shows a capital cost of \$637,000 and a total annual charge of \$51,500. Considering these figures in connection with the statements made above as to the effect of a low power capacity, combined with a heavy flood discharge, upon cost, it is interesting to note:

1. In the 2,000 h.p. estimate, the dam construction amounts to 63 per cent. of the total capital cost, and the annual charges against dam construction alone amount to 51 per cent. of the total annual charges.

2. In the 2,000 h.p. estimate, the interest and sinking-fund charges amount to 75 per cent. of the total annual charges.

3. In the 6,000 h.p. estimate, the dam construction amounts to 58 per cent. of the total capital cost, and the annual charges against dam construction alone amount to 45 per cent. of the total annual charges.

4. In the 6,000 h.p. estimate, the interest and sinking fund charges amount to 71 per cent. of the total annual charges.

It is evident from the above figures that the annual cost of generated power at the Black Hole will be high as long as the interest and sink-fund continues to be an annual liability, the more so because the revenue from such continuous power as can be generated under conditions of minimum flow will always have to carry the bulk of the annual charge against the development.

June 15, 1912.

REPORT NO. II

Round Lake Storage Dam

Instructions to Bidders.

1. Tenders will be received up to noon of Friday, November 17th, 1911, by the Hydro-Electric Power Commission of Ontario, for the construction of a storage Dam at the outlet of Round Lake, on Lot No. 8, Con. XIII., of the Township of Hagarty, County of Renfrew.

2. Tenders must be enclosed in a sealed envelope marked: "Tender on



Round Lake Dam, November Flood.

Round Lake Storage Dam," and addressed to the Honourable Adam Beck, Chairman, Hydro-Electric Power Commission of Ontario, Continental Life Building, Toronto.

3. Tenders must be submitted on the accompanying form of proposal. Any tenders submitted on other forms, or with additions, erasures, or alterations, may be rejected as informal.

4. Tenders must specify the shortest period of time within which the bidder will guarantee the completion of the work governed by the attached specifications.

5. Tenders must be accompanied by the attached specifications and drawings, all of which shall form a part of the contract to be entered into by the successful bidder.

6. Tenders must be accompanied by a certified check for \$500, which cheque will become forfeit to Commission as liquidated damages in the event of the successful bidder refusing or neglecting within two (2) weeks from the date of

mailing the notification to him from Commission so to do, to execute and deliver a satisfactory contract for the performance of the work governed by these specifications.

Checks of all bidders will be returned to them as soon as the contract shall have been executed.

The successful bidder shall execute a bond for \$1,500.00 for the proper performance of the work governed by the attached specifications.

7. Prices shall be written in words as well as figures.

8. The signatures of all parties tendering shall be in their respective handwriting.

9. Commission reserves the right to reject any or all tenders, and the lowest tender will not necessarily be accepted.

Toronto, Ontario, November 2nd, 1911.



Round Lake Dam, West Wing Wall.

Specifications and Conditions of Contract.

1. Nature and Location of Work:—The work governed by these specifications is located on Lot No. 8 of the 13th Concession of the Township of Hagarty in the County of Renfrew, and consists in the construction of concrete dam across the Bonnechere River for storage purposes, together with the supply of all necessary materials, plant, implements and labor necessary for or incidental to the building of such structure.

2. Meaning of Terms:—(a) The word "Commission" shall mean the Hydro-Electric Power Commission of Ontario.

(b) The work "Contractor" shall mean the party or parties to whom shall have been let the contract for the work to be done, and for the materials to be supplied under these specifications, or the legally appointed representatives, assigns and executors of said party or parties.

(c) The word "Engineer" shall mean the Chief Engineer of the Hydro-Electric Power Commission of Ontario, or the person from time to time duly authorized by the Commission to act in such capacity.

(d) The word "Work" or "Works" shall mean and include all the work to be executed, whether temporary or permanent.

(e) "The Contract" shall mean and include, along with the formal agreement, all specifications and plans further detailing, explaining or modifying the work, even though said plans and specifications be issued after the execution of the contract. It shall also be understood to include the Instructions of Bidders, General and Specific Conditions of Contract, Bidders' Proposal and Contractor's Bond.

(f) The word "Inspector" shall mean the person or persons duly authorized by the Engineer to inspect the work and materials under the Contract.

(g) The word "Plant" shall mean all the tools, horses, machinery, boilers, crushers, mixers, cars, tracks, and all temporary structures such as camps, store-houses, shoring, forms and profiles and all lumber, timber, derricks and whatever appliances or apparatus shall be brought to or constructed upon the site by Contractor for the performance of the work under the Contract.

3. Plans and Drawings:—Plan No. A-128 accompanies and forms part of these specifications. Contractor shall likewise be governed by any and all additional drawings which may be issued from time to time by Engineer, to supplement or supersede the drawing herewith attached.

Plans and specifications are intended to co-operate, so that if anything is shown upon the plans, but not mentioned in the specifications or *vice versa*, it is to be furnished and built as though specifically set forth in both. If any errors are discovered in the drawings, the same shall be referred to Engineer for adjustment before proceeding with the work.

4. Intent:—The nature and spirit of these specifications are to provide for the work herein enumerated to be fully completed in every detail for the purpose designed: and it is hereby understood that the Contractor in accepting the Contract, agrees to furnish any and everything necessary for such construction, notwithstanding any omission in the drawings or specifications.

Contractor shall apply to Engineer for any explanation which he may require in regard to the meaning and intent of any clause in these specifications and the Contractor shall be held responsible for any errors he may make in consequence of failure to obtain such explanation.

5. Scope of Work:—The work to be performed under these specifications comprises the construction of a concrete dam with three regulating sluices, a log-chute and spill-way with the necessary piers, abutments and wing-walls. Earth excavation will be required to place all portions of the structure on bed rock, and the rock excavation will comprise such stripping and trenching as may be necessary for a solid foundation and a proper bond between concrete and bed-rock. Back-filling will be required in the wing-wall trenches, and on the downstream side of the wing-walls.

6. Materials and labor:—Contractor shall furnish all materials and perform all labor to the extent that said labor and materials may be necessary for, or incidental to, the building to full completion of the work.

7. Transportation:—The railway shipping point available for the transportation of plant and material is Killaloe Station on the Ottawa-Parry Sound Branch of the Grand Trunk Railway. The distance from Killaloe Station to the site of the dam is approximately 6 miles, by a good road.

8. Accommodation:—If necessary, Contractor shall provide bunk-houses, eating camps, tents, etc., of sufficient capacity to house and feed his operating force in a comfortable and sanitary manner. If required, Contractor shall also provide free board and accommodation for Commission's Engineer or Inspector.

9. Inspection of Site and Plant:—Before tendering, Contractor or his accredited representative, shall make a careful examination of the site, and shall take cognizance of the nature and extent of the work to be performed, of the obstacles to be met with in its prosecution, and of any and all matters which may be necessary to form a proper conception of the conditions under which work will require to be performed.

10. Temporary Work and Unwatering:—During the entire time of executing the work governed by these specifications, Contractor shall, at his own cost, provide for the proper protection of same against water, whether from the stream or by surface wash. All deviating of such water and providing channels for conveying it away, together with construction of all necessary flumes, temporary dams, or coffer-dams for such above mentioned purposes shall be done by Contractor at his own expense: also such pumping, bailing and leakage disposal as is necessary to facilitate excavation and to lay concrete in accordance with the requirements of these specifications. Under these specifications the term "unwatering" shall include the removal of snow and ice.

11. Responsibility of Contractor:—Contractor shall be responsible, throughout the duration of the Work, for all violations on his part, or that of his employees, of any and all laws and ordinances (providing such violations occur on or near the site of work), and shall be responsible for all loss of life or injury to persons or property caused by the acts or omissions of himself or his employees.

Contractor shall properly protect all work and materials during construction and shall be responsible for the safety and efficiency of all false work and temporary structures, and for the condition of all permanent work, and shall make good any damage sustained to the same from the date of signing of Contract to date of formal acceptance of completed structure by Engineer.

Contractor shall be responsible for, and shall replace, at his own expense, any work improperly constructed through failure to apply to Engineer for enlightenment as to intent or interpretation of drawings or specifications.

Contractor shall be responsible for the preservation of all hubs, bench-marks, line stakes, etc., set or established by Engineer. Any errors entering into work through failure of Contractor to notify Engineer concerning destruction or misplacement of such stakes, marks, etc., shall be made good at Contractor's own expense.

Contractor shall be responsible for the water tightness of all concrete masonry, including contact with bed-rock.

12. Methods of Procedure:—As far as is consistent with the interests of the work and the results to be attained, the order and methods of presecuting said work will be left to the discretion of Contractor, with whom the responsibility of such order and methods shall rest. Provided, however, that Engineer shall at all times have the right to prescribe and control such order and methods with a view to the safety, rapidity and economy of construction of said work. In this connection, Contractor shall note the importance of so ordering his work as to provide, if required, a continuous and adequate outflow from the lake for power purposes on the lower river.

13. Alterations, Omissions and Extra Work:—The Engineer shall have the power to vary, extend, increase or diminish the quantity of the work or to dispense

with any portion thereof during its progress without impairing Contract, and no compensation shall be due Contractor except for the work actually done, such compensation being based on prices submitted in his proposal.

In case any change involves the execution of work of a class not herein provided for, Contractor shall perform the same and shall be paid the actual cost thereof, plus the percentage of profit to be hereafter agreed upon. In this case Contractor shall furnish Engineer with satisfactory vouchers, certificates, etc., for all labor and material expended on such work.

Contractor shall perform the work entailed by such additions, omissions and alterations only upon the receipt of Engineer's order therefor in writing, and any and all such extra work shall be performed strictly in accordance with these specifications in so far as they are applicable.

Engineer, at his discretion, may grant Contractor such extension of time as seems to him proper for the completion of any work which may reasonably be considered an addition to the original amount tendered upon.

14. Inspection:—All work and material shall at all times be subject to inspection by Engineer or his regularly appointed Inspector, who shall at all times be allowed every facility for examining said work and material.

All material condemned by Engineer or Inspector as unfit for the purpose for which it is intended, or as not fulfilling these specifications, shall be immediately removed from the works.

All work condemned by Engineer or Inspector shall be removed and rebuilt, free of charge to Commission, in a satisfactory manner, as governed by these specifications, and all work disturbed in the course of removal of said condemned work shall be made good, at Contractor's own proper cost and expense. Contractor shall be liable for replacement of defective work up to the time of final acceptance by Engineer of all work to be done under Contract.

In case Engineer or Inspector observes improper workmanship or procedure, or the use of defective material, in course of the construction, he will call the same to the attention of Contractor, or the foreman in immediate charge of that portion of the work, but should such foreman be inaccessible at the time, Inspector shall order the workmen to remove such improper work or materials, and his orders shall be immediately obeyed by such workmen.

15. Employees:—Any workman or mechanic employed upon the work governed by these specifications, who shall be deemed by Engineer or Inspector to be incompetent or disorderly, shall, on proper representation to Contractor, be by him discharged from the work, and shall not at any time thereafter be re-employed upon the same.

16. Labor, Plant and Materials:—Should Engineer be of the opinion, and so state in writing to Contractor that the force of men, or the quantity of plant supplied for the performance of the work governed by these specifications, is not sufficient or that the character of said plant is not suitable, or that the methods employed are not such as will indicate that the work will be completed within the time mentioned in Contractor's Proposal, Contractor shall forthwith increase the number of men employed upon the work under Contract and shall make the required additions to his Plant and shall conform to the method of procedure desired by Engineer. Should Engineer be of the opinion and so state in writing to Contractor, that materials for the work under Contract are not arriving at such a rate, or within such a time as to indicate that the entire work will be completed within the time mentioned in Contractor's Proposal, Contractor shall forthwith proceed to obtain such material at the rate or within the time directed by Engineer.

In the event of Contractor failing to meet the requirements of Engineer in the matter of Labor, Plant or Material as above, Commission shall be empowered to employ such additional labor, obtain such material and such additional plant, and deduct all costs in connection therewith from any moneys then due or to become due to Contractor.

17. Authority:—There shall be continuously on duty at the Works, during working hours, a duly appointed representative of Contractor, in whom, as Superintendent, shall be vested the necessary authority to supervise the carrying out of the work under the Contract and who shall be authorized and prepared to receive from time to time, as for Contractor, orders and instructions from Engineer. Superintendent, as an employee of Contractor, shall be subject to conditions of Section 15 of these specifications.

There will be continuously on duty at the works a duly appointed representative of Engineer in whom will be vested all Engineer's authority as governed by these specifications.

18. Engineer's Decision:—Engineer's decision shall control as to the interpretation of drawings and specifications during the execution of the Work, and he shall be sole judge of work and material, both as to quality and quantity, and his decision on all questions of dispute with regard to work or material shall be final.

19. Lines and Grades:—All lines, grades, elevations and profiles will be set or established by Engineer, and Contractor shall furnish free of cost any labor which may be necessary or convenient, and shall facilitate in every way all operations incidental to or necessary for the setting of such stakes, profiles, etc.

20. Sub-Contracts:—No part of the work is to be sub-let, unless by written consent of Engineer: Contractor stating in writing to Engineer the name of the sub-contractor to whom he purposes to let a portion of the work. Any and all such sub-contractors will be regarded as employees of Contractor and shall be answerable to all clauses in these specifications referring to such employees.

21. Suspension and Extension of Time:—Commission shall have the right to suspend operations from time to time at any point, or upon the whole of the works. In the event of such right being exercised, so as to cause any delay to Contractor, then an extension of time equal to such delay, and to be fixed by Engineer, shall be allowed for completion of Contract, and Commission shall pay Contractor all reasonable expenses arising from such suspension of work, unless it be due to purely natural causes, or to some default on the part of Contractor.

No such suspension or extension shall violate this Contract or any portion thereof, or release Contractor or others from any obligation hereby imposed, or bond, or surety for the performance of this Contract.

Contractor shall furnish Engineer with proper vouchers, certificates, etc., for all items upon which claim is made under this clause, and shall also immediately resume operations upon receiving written instructions from Engineer so to do.

22. Liquidated Damages:—For each day of delay beyond the date set in Contract for completion of work governed by these specifications or beyond the date set in the written notification of Engineer regarding extension of time, Commission shall withhold permanently from Contractor's total compensation the sum of \$10.00 (Ten dollars).

The amounts thus withheld shall not be considered as a penalty, but as liquidated damages fixed and agreed to by the contracting parties.

23. Estimates and Payments:—On or about the end of each month a progress estimate will be prepared by Engineer showing approximately the amount of each

class of work performed during that month, and the value thereof will be computed as per schedule of prices incorporated in Contract. Ninety (90%) per cent. of the amount of each estimate thus prepared will be paid to Contractor in cash, on or about the fifteenth of the month following.

Upon completion of work, Engineer will make a completely revised estimate of the total quantity of the various classes of work performed, based on field measurement and valuated as per schedule of Contract prices. The amount of this final estimate, less the total amount of all moneys advanced on progress estimates, shall become due to Contractor within thirty days of, and subsequent to, Engineer's formal acceptance of all work performed under this Contract. At the same time shall become due, and under the same conditions, all remuneration to which Contractor is entitled for the performance of work of a class not mentioned in the Schedule, as per clause 13 of these specifications.

24. Liens:—Before Contractor receives final payment from Commission for completed work, he shall show satisfactory evidence that all just liens, claims and demands of his employees, or of parties from whom materials or plant used in construction may have been purchased or procured, have been fully satisfied, and that the materials furnished and work done in the performance of completed Contract are fully released from all such liens, claims and demands.

If during the progress of the work, it appears that Contractor's bills for labor and material are not being paid, Commission shall have the right to withhold from Contractor's monthly payments a sufficient sum or sums to guarantee itself against all losses from mechanics' and other possible liens, and to supply the said sum or sums to the payment of such debts.

25. Definitions:—(a) "Rock" shall mean all solid rock, rock in ledges and all detached masses more than one-third (1-3) cubic yard in volume.

(b) "Earth" shall mean all other material than "Rock" (except snow and ice) including sand, gravel, clay, peat, mould, and detached masses of rock or boulders less than one-third (1-3) cubic yard in volume.

26. Timber and Lumber:—All timber and lumber used for forms and false work shall be properly seasoned and sound, and such as will, in Engineer's opinion, be safe and suitable for the conditions under which it is to be used.

27. Forms:—All plank used for lagging shall be out of wind, dressed on one face, and dressed true and parallel on the edges. Forms shall be externally braced and stayed in such a way as to withstand ramming without bulging or spreading. Lagging shall butt and match so as to hold a good wet mixture without undue leakage.

28. Cement:—None but approved and well-known brands of Portland cement shall be used on the work, and same shall be stored in a tight shed with a close floor set up at least one foot from the ground. Engineer may make such tests as he considers necessary, and all condemned cement shall be immediately removed from the work. Cement will be judged, not only from Engineer's tests, but also by its behavior in the work.

29. Sand:—All sand used shall be coarse, clean and sharp and free from loam, clay or mould. If necessary in opinion of Engineer, all sand shall be washed.

30. Broken Stone:—All broken stone shall be clean and free from clay, or loam. The run of the crusher may be used throughout with the exception of such sizes as will not pass through a two and one-half ($2\frac{1}{2}$) inch ring. Rock excavated on the site may be used subject to written approval of Engineer.

31. Gravel:—If gravel is obtainable, of quality approved by Engineer, it may be used in proportions as below specified for broken stone, gravel being screened to obtain such proportions, if necessary.

32. Concrete:—Concrete used shall consist of two mixtures as follows:

(1) One (1) part cement. Two (2) parts sand. Four (4) parts broken stone.

(2) One (1) part cement. Three (3) parts sand. Six (6) parts broken stone.

In mixing, one barrel of cement shall be considered to contain 3.5 cubic feet, and one barrel of cement to contain 4 bags.

Concrete 1-2-4 shall be used in the following locations:—

(1) On the pier noses and up-stream faces of abutments for a distance approximately two (2) feet back from the face.

(2) In the sluice aprons.

(3) For a distance of two (2) feet above the level of the aprons on all piers and abutments.

(4) To a depth of twelve (12) inches on the crest of the spillway.

Small quantities of 1-2-4 concrete may also be required in various locations, as Engineer directs.

Concrete 1-3-6 shall be used in such positions in the piers and abutments as are not specified above for 1-2-4 concrete, and also in the wing-walls and spill-way.

Small quantities of 1-3-6 concrete may also be required in various locations, as Engineer directs.

Should unforeseen conditions make the use of the above mixtures unsuitable or unsafe, Engineer shall have the privilege of altering the proportions of cement, sand and stone, to make a more suitable mixture, and a price for the new mixture shall be agreed upon by Engineer and Contractor.

The method of mixing concrete shall be left to Contractor, but shall preferably be mixed with a power driven rotary mixer, no gravity mixer being allowed. Should Contractor decide to mix all or any large proportion of concrete by hand, the method of so doing will be prescribed in writing by Engineer.

Concrete shall be deposited in layers not more than nine inches thick, and shall be rammed till puddles form on the surface. The 1-2-4 facing mixture on the pier noses shall be laid up simultaneously with the 1-3-6 backing and rammed with it, ramming from the forms in towards the heart of the wall. Concrete shall be spaded on all faces to insure smooth surface.

When fresh concrete is to be laid upon the surface of concrete already set or upon original or excavated rock surface, such surface shall be washed and thoroughly cleaned with water and brushed over with a grout of neat cement immediately before the fresh concrete is laid.

All cement must be placed immediately after mixing. No re-tempering will be allowed.

In portions of the structures which are more than four feet in thickness the use of "plums" is permissible. Such "plums" shall consist of clean, sharp-edged, irregular fragments of wet rock, which shall be driven solidly into the wet concrete. There shall be at least six inches of concrete between stones so placed, and between stones and forms. These stones shall also serve as keys to bond together batches of concrete placed on consecutive days, and for this purpose shall project approximately half their longest dimensions from the surrounding concrete. No stone containing more than two cubic feet shall be used in the above manner.

Contractor shall take such means as Engineer may direct to protect concrete from frost. Any suspension of work in connection with the placing of concrete,

ordered by Engineer on account of extreme weather, shall not constitute a claim for compensation under Clause No. 21 of these specifications.

Concrete shall in all cases be laid in the dry and not under water.

No forms shall be removed from concrete except at direction of Engineer.

All finished concrete shall conform to the lines laid down in the drawings, and the final and progress estimates shall be based on these lines.

33. Earth Excavation:—Earth excavation shall be defined as per Clause No. 25.

Earth shall be removed according to lines established by Engineer as work progresses, and no allowance shall be made for excavation or falls outside of these lines.

34. Rock Excavation:—Rock, defined as per Clause No. 25, shall be taken out, in trenches and other excavation, to lines established by Engineer as work progresses, and no allowance shall be made for excavation or falls outside these lines. All bed-rock upon which the dams are founded shall be trenched.

35. Back-filling:—The up-stream wing-wall trenches shall be back-filled with selected filling as noted on plan. All back-filling shall be thoroughly tamped or otherwise compacted to the satisfaction of Engineer.

36. Structural Steel and Wrought Iron.—Structural steel will be required for stop-log grooves, and a small amount of wrought iron will be required for the stop-logs. All material supplied under this head must be of good quality and subject to the Engineer's inspection and acceptance.

Steel for stop-log grooves shall be set in the concrete forms to lines established by Engineer.

37. Stop-logs.—Stop-logs shall be clear yellow pine, or B.C. fir, well seasoned and dressed, straight and true. Sills shall be of the same quality of timber and shall be set accurately to line and grade as shown in the drawing.

38. Flooring.—The floor of stop-log platform shall consist of undressed well-seasoned hemlock plank and shall be spiked or laid loose as Engineer directs.

39. Cofferdams.—The location of coffer-dams, and the method of constructing same shall be left entirely to Contractor, the only limitation being that such structures shall keep the site of work free of water, either with or without the necessity for pumping, bailing or other method or methods of leakage disposal.

40. Schedule of Quantities.—The following is a summary of estimated quantities of work and material governed by these specifications, it being understood that the quantities given herein are merely approximate and subject to change.

Earth excavation	550 cubic yards.
Rock excavation	75 " "
Concrete	450 " "
Back-filling	350 " "
Wrought iron and steel furnished and placed	2,250 pounds.
Lumber and timber for flooring	2,500 feet B.M.
Stop-logs furnished and framed	8,850 " "
Sluiceway sills furnished and placed	1,200 " "

Proposal.

THE HONOURABLE ADAM BECK, Toronto, Ontario,

DEAR SIR,—

The undersigned having inspected the locality where the work hereinafter mentioned is to be performed, and having examined the plans and specifications governing said work, do now propose to provide all tools and appliances necessary for the proper prosecution of the work, and to furnish all material, and to perform all labor necessary for or incidental to the construction of the dam, in accordance with the plans, specifications and contract governing this work, and to carry the work to a full completion to the satisfaction of your Engineer, at the following prices, viz.:

1. For excavation of earth, including all solid material (except snow and ice, and such as is herein classified as rock) together with its removal and disposition, the sum of 65 cents (sixty-five cents) per cubic yard.
2. For excavation and removal of rock, the sum of \$2.25 (two dollars and twenty-five cents) per cubic yard.
3. For concrete in place, the sum of \$8.50 (eight dollars and fifty cents) per cubic yard.
4. For back-filling, the sum of 30 cents (thirty cents) per cubic yard.
5. For structural steel and wrought iron furnished and placed, the sum of 6 cents (six cents) per pound.
6. For lumber and timber furnished and placed in floor of dam, the sum of \$30.00 (thirty dollars) per M. feet B.M.
7. For stop-logs and sills, furnished, framed and placed, the sum of \$50.00 (fifty dollars) per M. feet B.M.

The following is a summary of our proposal, the quantities used being those given in your Engineer's schedule, it being understood that the quantities given therein are merely approximate and subject to change:—

550 cubic yards excavation of earth at 65c.	\$357 50
75 cubic yards excavation of rock at \$2.25	168 75
450 cubic yards concrete at \$8.50	3,825 00
350 cubic yards back-filling at 30c.	105 00
2,250 lbs. steel and wrought iron, furnished and placed at 6c.	135 00
2,500 ft. B.M. lumber and timber for floor of dam at \$30.00	75 00
10,050 ft. B.M. stop-logs and sills, furnished, framed and placed at \$50.00....	502 50

\$5,168 75

If this proposal be accepted, we agree to enter into and execute a contract governing this work. We also agree to commence work within ten days from date of signing of said contract and to complete all of said work, in accordance with plans and specifications on or before the 15th of February, 1912.

Yours very truly,

(Signed) MCCOY and MAGUIRE,

Contractors.

Dated at Trenton, Ont., Nov. 16, 1911.

Contract.

THIS AGREEMENT, dated the 20th day of May, 1912.

Between

CHARLES DANIEL MAGUIRE, herein called the Contractor, the First Party,

and

THE HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO, herein called the Commission, the Second Party.

WITNESSETH:

That the parties covenant, promise and agree each with the other as follows:

1. The Specifications for the construction of the storage dam at Round Lake, the instructions to bidders, Plan A-128 showing details of construction of storage dam at Round Lake, and Contractor's proposal shall all be attached hereto, and shall form part of this Contract, the meaning of the term "Contract" to be defined as per Clause 2-e of the attached specifications.

2. The Contractor agrees:—

(a) To construct and erect the storage dam complete and to supply all labor, plant and materials necessary in connection therewith.

(b) To use the best material and carry the work to completion in a thorough workmanlike manner in strict conformity with said plan, specifications, and all additional plans which may be issued under the conditions of Clause No. 3 of said Specifications.

(c) That the signing of the contract by the parties hereto shall constitute an order from Commission to Contractor to proceed with the work under contract without further delay.

(d) Subject to receiving notice as above specified, to fully complete the work under contract to the satisfaction of the Commission on or before the 15th day of September, A.D. 1912.

(e) To execute a bond satisfactory to the Commission in the sum of One Thousand Five Hundred Dollars (\$1,500.00) for the proper performance of work under contract.

3. The Commission agrees:—

(a) To pay Contractor for the different classes of work in accordance with the conditions of Clauses Nos. 13 and 23 in the attached specifications.

(b) To provide free access to the property upon which the storage dam is to be built.

4. It is further agreed:—

(a) That the grouting of bed-rock before laying concrete shall include the grouting of such fissures or cracks as, in the opinion of the Engineer, will require such treatment to insure water tightness as called for in Clause No. 11 of attached specifications.

(b) That progress and final estimates of quantities of earth and rock excavation shall be based on measurement of material in place before removal, and that progress and final estimates of quantities of back-filling shall be based on measurement of same after having been placed in accordance with the requirements of attached specifications.

(c) That any extra work as defined by Clause No. 13 of attached specifications, performed or executed by Contractor without the required written order

from Engineer, shall be performed or executed entirely at Contractor's risk, and it shall rest with the Engineer to decide whether or not Contractor shall receive compensation therefor.

(d) That Contractor shall signify his acceptance of all progress estimates and of the final estimate, by signing the same with Engineer before they are presented to the Commission for payment.

(e) That Contractor, upon completion of the work, and before the final payment is made, will remove from the site of the dam all plant, debris, refuse, material, temporary sheds, buildings, etc., and dispose of all unused excavated material in orderly piles so situated as not to interfere with the operation of the dam, or with the proper disposal of flood-water.

(f) If, within twelve months from the date of the final certificate of the Engineer, it appears that unsound or defective material supplied by Contractor has been used, or the work under contract has not been executed in a substantial, workmanlike and proper manner, the Contractor shall be liable to the Commission for all damages arising therefrom. No certificate, payment, or other act, matter or thing, done or omitted under this contract shall bar or prejudice the rights of the Commission.

(g) If any difference shall arise during the progress or after the completion of the works, as to any matter or thing arising under or out of this contract, such difference shall be referred to two arbitrators, one to be chosen by each of the parties hereto, and they shall choose a third arbitrator, but if they cannot agree, such third arbitrator shall be chosen by the Chief Justice at the time of the King's Bench Division of the High Court of Justice. When possible, the arbitrators shall decide such difference in a summary manner. Either party may appeal from any award of the arbitrators, as provided by the Arbitration Act, Ontario Statute, 1909, but no such appeal shall be carried beyond the decision of the Court of Appeal of Ontario. The Arbitrators shall not consider any matter of difference which is expressly or by implication required or permitted to be decided by the Engineer, or as to the grounds upon which, or mode in which, any opinion may have been formed or discretion exercised by the Engineer.

(h) For all purposes of this contract, notices shall be served upon the Engineer, or his appointee, in writing, for the Commission, and upon the Manager, or his appointee, in writing, for the Contractor.

(k) Time shall be of the essence of this agreement.

(l) This agreement shall extend to, be binding upon and enure to the benefit of the executors, administrators and assigns of the first party, and of the successors and assigns of the second party.

IN WITNESS WHEREOF the said Commission has affixed its corporate seal and has signed, sealed and executed the present agreement; and Charles Daniel Maguire has signed, sealed and executed the present agreement on behalf of Contractor.

WITNESS:

As to signatures of Commissioners,

W. W. POPE.

(Signed) A. BECK,
Chairman.

(Signed) JOHN M. HENDRY,
Commissioner.

(Signed) C. D. MAGUIRE,
Contractor.

As to signature of Contractor,

(Signed) W. S. McNAMARA.

REPORT No. III

North Bay

Attached hereto is a revised estimate of the capital cost and annual charges in connection with supplying power to the Municipality of North Bay from Smoky Falls, prepared in accordance with the recent request of the Municipality. This estimated is a complete revision of the one which was submitted to the Municipality in August, 1908.

In the attached estimate, it has been considered advisable to include the cost of permanent power-house and sub-station buildings in place of the temporary superstructures originally estimated upon. The transmission line has also been built for full capacity at the outset instead of erecting one circuit for half capacity as in the original estimate. The transmission route has also been increased three miles, by bringing the line by the shortest route down to the main line of the C.P.R. instead of carrying it straight across country. The effect of these changes has been to make a slight decrease in the capital cost for full capacity, and a considerable increase in the capital cost for half capacity. The result of installing transmission line for full capacity at the outset has been to make a slight reduction in the annual charge of power for full capacity, and a slight increase in the annual cost of power for half capacity.

Estimate for full capacity of 2,500 h.p. delivered in North Bay, at 2,200 volts.

Capital Cost:

Dam, Power House and Permanent Works	\$48,700 00
Generating Equipment	67,000 00
Transformation	66,230 00
Transmission	51,740 00
	\$233,670 00
Engineering and Contingencies, 10%	23,367 00
Interest during Construction, 3%	7,010 00
Total Capital Cost	\$264,047 00

Capital Cost on basis of 2,500 h.p. delivered, \$106.00 per h.p.

Annual Cost:

Dam, Power House and Permanent Works	\$540 00
Generating Equipment	3,323 00
Transformation	3,294 00
Transmission	2,870 00
Total Maintenance and Depreciation	\$10,027 00
Annual Interest, 5% on \$264,047	13,202 00
Sinking Fund, 18% on \$264,047	4,753 00
Operation and Administration	7,000 00
Engineering and Contingencies	1,300 00
Total Annual Cost	\$36,282 00

Annual Cost on basis of 2,500 h.p. delivered, \$14.50 per h.p.

Estimate for half capacity of 1,250 h.p. delivered in North Bay, at 2,200 volts.

Capital Cost:

Dam, Power House and Permanent Works	\$43,900 00
Generating Equipment	37,550 00
Transformation	46,290 00
Transmission	51,740 00

\$178,480 00

Engineering and Contingencies, 10%	17,848 00
Interest during Construction, 3%	5,354 00

Total Capital Cost\$201,682 00

Capital Cost on basis of 1,250 h.p. delivered, \$161.00 per h.p.

Annual Cost:

Dam, Power House and Permanent Works	\$492 00
Generating Equipment	1,788 00
Transformation	2,104 00
Transmission	2,870 00

Total Maintenance and Depreciation \$7,254 00

Annual Interest, 5% on \$201,682.00	10,084 00
Sinking Fund, 1.8% on \$201,682.00	3,630 00
Operation and Administration	5,400 00
Engineering and Contingencies	940 00

Total Annual Cost \$27,308 00

Annual Cost on basis of 1,250 h.p. delivered, \$21.80 per h.p.

December 14, 1911.

REPORT NO. IV

Wingham

Under date of Nov. 12, 1910, a resolution of the Council of the Town of Wingham was forwarded to the Commission, asking to have a certain power site on the Maitland River examined with a view to reporting on the probable power capacity and the cost of development.

The site of the development, which is located on Lot No. 32 of the 13th Concession of East Wawanosh, about $6\frac{1}{4}$ miles from the Town of Wingham, has no natural advantages of any kind. There is no natural head, all dam construction must be founded on material other than rock, and the flow characteristics of the stream vary to such an extent that at low water the power capacity is very limited, while at high water there is every probability that the head reduction will be such as to seriously affect the operation of the turbine wheels.

An examination of the site disclosed the fact that a detailed survey would be necessary in order to determine the possible head, and to ascertain the extent of back-water. This survey indicated that a 15-foot head at the site of development would involve land damages to the extent of about 150 acres and would back up the water about $4\frac{1}{4}$ miles. A plan of this survey was forwarded to the Municipality under date May 12, 1911, with a letter stating that no further report would be forthcoming until some definite information had been procured in connection with the flow characteristics of the stream.

Beginning with June 17, 1911, monthly measurements of flow have been made up to the present date, the last gauging having been made on Dec. 21st, 1911. The results of these measurements are tabulated hereunder, giving the power capacity under a 15-foot head for the various observed stages of flow:—

Date of Measurement	Discharge.	24 hr. Power Capacity.
June 17, 1911	218 sec. ft.	270 h.p.
July 17, "	139 " "	174 "
Aug. 12, "	86 " "	108 "
Sept. 19, "	81 " "	102 "
Oct. 14, "	166 " "	210 "
Nov. 19, "	2,446 " "	3,000 "
Dec. 21, "	920 " "	1,150 "

The above figures indicate that during the past summer the period of minimum flow occurred during the months of August and September, and it is to be noted that the flow measurements made during these months do not indicate the extreme minimum discharge. This is proved by the fact that measurements taken at Goderich on the same date did not indicate minimum flow, as the gauge at Ben Millar registered lower stages both before and after the dates of the August and September gaugings. In view of this, it would not be safe to assume the minimum flow at Wingham at anything higher than 70 second feet for the past summer. This is equivalent to a 24-hour power capacity of 90 h.p.

On the basis of the above figures, if it is assumed that minimum flow conditions obtain during the summer and not during the winter, the continuous annual capacity of the site would be about 100 h.p. for 24 hour power, and from 150 to 200 h.p. for 10 hour power, depending on the character of the load.

As above mentioned, there is no natural head available, so that the operating head, which is taken at 15 feet, will require to be created wholly by means of a dam. The estimated cost of a plant of 200 h.p. installed capacity operating under this head totals \$96,000, and the total estimated annual charge is \$10,500, which makes the annual cost of power \$105 per h.p. on a continuous 24 hour basis, or \$70 per h.p. per annum on a 10 hour basis.

Owing to the unfavourable character of the bottom at the site of development, the main items of cost in the above estimate are the dam, power-house, and excavation and unwatering. These items alone total \$50,000 and are the variable and uncertain items in the estimate. Even assuming, however, that this portion of the work only costs half of the above sum or \$25,000, the total capital investment and annual charge would still be sufficient to make the cost about \$97 per h.p. per annum on a 24 hour basis, and \$58 per h.p. on a 10 hour basis.

It is to be noted that these figures do not include the cost of local distribution, but only the cost of delivering power at 2,200 volts in the municipal sub-station. The delivery of this power to the individual customer would necessitate a further capital outlay and a consequent increase of the annual cost of power.

It would seem, therefore, in view of the above facts, that the development of this site to the extent necessary for the requirements of the Town of Wingham is not commercially feasible. This site might be developed for a capacity of 50 to 200 h.p. by means of a cheap wooden dam controlling a head of about 10 feet and the hydraulic power used direct by some industry which would not suffer serious inconvenience from lack of power at low stages of flow. Apart from this possibility the site has no economic value as a source of power.

January 2, 1912.

REPORT NO. V

Parry Sound

The Seguin River, within the limits of its capacity, provides the most economical source of hydraulic power available to the Town of Parry Sound, which is located at its mouth. The watershed of the river, about 400 square miles in extent, contains a large number of lakes, and it is proposed to investigate the possibility of utilizing the storage capacity of these lakes to augment the low water flow.

Investigation of precipitation records from Parry Sound, Uplands and Emsdale indicate that the minimum annual precipitation on the Seguin watershed up to the end of 1911 is 28.95 inches. Assuming that the run-off is 33 1-3 per cent. of the total precipitation, there would be 9.65 inches of rain available for power purposes in a minimum year. The geological and topographical features of the watershed are such that this estimate of available run-off is believed to be conservative.

A run-off of 9.65 inches from a watershed of 400 square miles would mean a total discharge of 9,347 million cubic feet per annum. If the total run-off were conserved, this would produce a continuous uniform discharge of 300 sec. feet, or 25 continuous 24 hour electric horse-power per foot of head at Parry Sound. This figure represents the maximum possible continuous capacity obtainable from the Seguin River, and it remains to ascertain how far the construction of storage works will go towards the realization of this maximum condition.

The principal lakes of the Seguin watershed are listed hereunder, the area of each being shown, also the area of the tributary watershed and the probable storage draft which would be available on each lake.

Lake.	Lake Area, acres.	Watershed Area, sq. miles.	Storage Draft, feet.	Storage Capacity, million cubic feet.	Total Run-off, million cubic feet.	Surplus Run-off, million cubic feet.
Whitefish	978	10	5	213	224	11
Turtle	294	17	5	64	381	104
Star	355	29	9	139	650	234
Marsh	122	36	5	27	807	364
Maple	495	61	5	108	1,367	816
Duck	176	64	5	38	1,435	846
Isabella	381	169	10	166	3,788	3,033
Manitowabin	1,751	142	8	610	3,182	573
Lorimer	1,027	13	6	268	291	23
Harris	427	25	6	112	560	180
Bell's Lake	162	32	5	35	717	302
Long	551	13	8	192	291	99
Trout	598	4	3.5	90	90	.....
Mill	1,191	417	12	623	9,347	6,662
Totals .....	.....	417	.....	2,685	9,347	6,662

It is to be noted in the above table that the areas of the various lakes have been taken off township maps, so that their actual storage capacity should in many cases be greater than the figures indicate. Also Horn Lake and the "1,000 Acre Meadow" have been omitted as they could not be located on the township maps.

If these two basins were substituted for some of the smaller lakes included above, such as Marsh, Duck and Bell's Lake, the total volume of storage would be increased and one dam eliminated. All conclusions drawn from the above figures should therefore be on the safe side.

These figures indicate that the aggregate storage capacity of the lakes considered is about 2,685 million cubic feet, and the non-regulated surplus run-off below Mill Lake is about 6,662 million cubic feet per annum. The above storage capacity would produce a continuous discharge of:—

207 sec. feet for 5 months in each year, or

173 sec. feet for 6 months in each year, or

148 sec. feet for 7 months in each year.

The distribution of flow due to the non-regulated surplus can only be determined by actual operating experience, but while it is impossible for this reason to assign a definite value for the minimum non-regulated discharge, it might be safely estimated at not less than 173 sec. feet, which would mean that a continuous discharge of 173 sec. feet would be available the year round by drawing on storage for six months.

A discharge of 173 sec. feet would produce 14.5 continuous electric horsepower per foot of head. This would make the normal 24 hour capacity of the Municipal Plant about 360 h.p. With the night storage and load factor accommodation afforded by Mill Lake, 700 h.p. of installed capacity in the Town plant would seem to be quite justifiable. It is reported that a 25 foot head is available at Mountain Rapids above Mill Lake. As practically the same amount of water is available at both sites, the combined 24 hour capacity of both plants would be approximately 756 e.h.p. The Mountain Rapids' plant would be deficient in 10 hour capacity, owing to lack of pondage, but the two plants operating together should be able to handle a 10 hour switchboard load of 1,000 to 1,200 h.p. and a connected load of 1,800 h.p.

Sufficient data is not at present available to lay out a definite scheme of development or to make estimates of cost, but the first step would doubtless be to rebuild the dam at Mill Lake, as this dam would be the central control point for the whole storage system. With a tight and properly designed dam at Mill Lake, it might not be necessary to go to any further expense for some time, other than putting comparatively inexpensive repairs on the present lumbermen's dams on the Upper Lakes. These upper dams need not necessarily be tight, as leakage could be held and controlled at Mill Lake.

April 13, 1912.

REPORT NO. VI

Parry Sound

A reconnaissance survey of the Seguin River watershed was made in the month of June 1912. This survey indicated the existence of certain conditions which may be summarized as follows:

1. The area of the watershed is only 365 square miles instead of 400 square miles, as estimated in the report of April 13, 1912.

2. The continued filling of certain storage basins in the upper watershed indicated that the annual run-off might be somewhat in excess of the 9.65 inches estimated in the report of April 13th, 1912. In the case of Whitefish and Clear Lakes, such local information as was obtainable indicated that these lakes were filled regularly from year to year to the limit of their storage capacity. To accomplish this would require a run-off of about 15 inches from the tributary watershed. If an average minimum run-off of 12 inches for the whole watershed is assumed, the resultant volume of annual run-off will be greater than that estimated upon in the report of April 13, 1912, notwithstanding the fact that the area of the watershed has been found to be less.

3. The actual storage areas of many of the lakes is considerably greater than the areas used in the report of April 13, 1912, which were taken from old township maps.

4. Most of the dams now in existence throughout the watershed are so located and in such condition that a reasonable sum expended in repairs would enable them to render effective service as storage dams.

5. The foundation material is rock in nearly every instance and new dams could be built where necessary at reasonable cost.

In view of the above, the following conclusions seem justifiable:

(1) That a larger volume of annual run-off will be available than was previously estimated upon.

(2) That greater storage capacity exists in the various lakes than has been estimated upon, and consequently there exist greater possibilities as regards the ultimate volume of regulated flow.

The final conclusion is, therefore, that if there exists a *bona fide* demand for power in Parry Sound in excess of the present capacity of the Municipal plant, the additional demand can be most economically met by the development of storage.

At the present time it is impossible, and also unnecessary, to lay out any scheme which would embrace the complete development of storage in the Seguin watershed. The development of any storage scheme should begin at some point where the advantage to be gained is obvious and certain, and the records and results derived from such preliminary development used as a guide for the gradual extension of the system.

As regards the Seguin watershed, obvious advantage is to be derived from the proper control and regulation of Mill Lake and Manitowabin Lake, and the successive steps to be undertaken for complete development would be somewhat as follows:

First.—The development of the Mill Lake storage.

Second.—The development of the Manitowabin Lake storage.

Third.—The development of the Isabella Lake storage.

Fourth.—The development of the Duck, Maple and Marsh Lake storage.

Fifth.—The development of the Whitefish and Clear Lake storage.

Sixth.—The development of the Lorimer and Upper Owl Lake storage.

Seventh.—The development of the Long Lake storage.

Eighth.—Finally, if future investigation proves that more perfect regulation of flow could be obtained at economical cost for dam construction and land damages, the development of the smaller basins, such as Horn Lake, Harris Lake, 1,000 Acre Meadow, etc., could be considered.

In view of existing conditions, therefore, it is probable that the consideration of immediate development may be limited to Mill Lake and Manitowabin Lake. The tightening up and general repair of the dam seems to be all that is necessary at present as regards Manitowabin Lake, while the Mill Lake storage will require to be controlled by a masonry dam so designed as to reduce leakage to a minimum, and afford the best facilities for the rapid and efficient handling of water.

The waters of Mill Lake may be controlled either by building on the site occupied by the present wooden dam, or by raising the dam and head works at the Municipal plant sufficiently to drown out the present Mill Lake dam. This matter requires careful consideration, as the advantage does not lie altogether with either site.

The advantages and disadvantages of the two sites may be summarized as follows:—

1. The upper site would make 10 to 13 feet of storage available on Mill Lake.

The lower site would make not more than 5 feet of storage available, as any greater variation in the elevation of head-water would injuriously affect the regulation of the wheels. This disadvantage could be overcome by controlling the elevation of tail-water.

2. The topographical features of the upper site are such that the length of dam necessary for closure is considerably greater than is necessary for spillway and sluice capacity to handle flood water.

At the lower site the dam would require to have greater height but would be shorter, and the greater part of its length could be utilized for sluice and spillway construction.

3. A 10 foot variation of level on Mill Lake would interfere seriously with navigation. A 5 foot variation might possibly allow permanent navigation as far up the river as Mountain Rapids. This would be an important consideration in the event of the development of power at that point.

4. The building of a dam at the upper site would entail an annual liability for operation, maintenance and depreciation on two separate dams. These charges would apply to one structure only in the case of the lower site.

5. No land damages would be involved in the case of the upper site. If the lower site were used, flood privileges would require to be purchased from the headworks of the Municipal plant up to the present Mill Lake dam.

6. If the level of head-water could be raised 8 feet, there would be 3 feet of extra head on the Municipal plant after allowing for 5 feet of storage. This would mean about 12 per cent. increase in power capacity.

7. Portions of the outer forebay wall of the Municipal plant are unsafe and should be reinforced. A portion of the cost of raising the dam and headworks could rightly be charged against this. The final solution of this problem will necessitate the determination of comparative capital and annual costs of dam construction, and the location of flood contours from the headworks of the Municipal

Plant to the head of Mill Lake. With this information available it will be possible to decide definitely as to the proper basis upon which to establish a scheme for the development of artificial storage in the watershed of the Seguin River.

As regards Mountain Rapids, it may be said that while the topographical conditions are not favourable as a whole, it would in all probability be commercially feasible to install a plant at that point should future market expansion require it. The natural head is about 25 feet, and anything up to 40 feet could be obtained by acquiring the necessary back-water privileges. The development of Mountain Rapids is, however, a matter for future consideration, as the augmented flow derived from storage will at present provide much more economically for the Town's growing needs in the matter of power.

October 10, 1912.

REPORT NO. VII

Markham

For a period extending from May, 1912, up to the present time discharge measurements have been made and records of water level kept, in order that sufficient hydraulic data might be obtained to advise the Municipality in the matter of the proposed purchase of two mill-powers on Rouge Creek in the vicinity of the village.

Rouge Creek has a watershed area of about 65 square miles above the lower mill site. Owing to the restricted area of the watershed, the flow regulation under natural conditions would not have been good, and clearing, drainage and cultivation, together with the existence of dams on the upper reaches of the stream, have so accentuated this condition as to largely discount the value of the stream as a dependable source of power in commercial quantities.

As regards development, one proposal was to build a dam below the tail-race of the Reesor Mill and create a 30 foot head by drowning out the Reesor dam and the Milne dam immediately above. Another scheme was to reinforce the embankment and build a dam under the new 8th Concession bridge for a 30 foot head.

A survey covering both schemes having been made, it was found that the proposition to develop power at the 8th Concession bridge was impracticable, while a 30 foot head below the Reesor dam was a possibility if the stream could be depended upon to furnish a sufficient volume of flow to make development commercially feasible.

Measurements of flow taken since last May show the following results:

May 14, 1912.—Above Milne's dam, 23 cubic feet per sec.

May 14, 1912.—Below Reesor's dam, 24 cubic feet per sec.

June 21, 1912.—Below Reesor's dam, 23 cubic feet per sec.

July 16, 1912.—Below Reesor's dam, 7 cubic feet per sec.

August 27, 1912.—Below Reesor's dam, 11 cubic feet per sec.

Sept. 14, 1912.—Below Reesor's dam, 42 cubic feet per sec.

Oct. 14, 1912.—Below Reesor's dam, 19 cubic feet per sec.

On the basis of the above figures, the maximum quantity of continuous 24 hour power available under a 30 foot head would have been 105 h.p., and the minimum would have been 17 h.p. It is to be understood that these figures do not represent the natural discharge of the stream owing to the existence of a number of dams above the point of measurement, but they represent a condition which would have to be contended with, because natural flow conditions would never obtain as long as these dams are used and operated. Taking the area and physical characteristics of the watershed into consideration, it is probable that not more than 10 cubic feet per second of discharge could be depended upon under conditions of minimum flow. This would mean about 25 h.p. 24 hour power under a 30 foot head, and with the pondage which the development of the lower site could provide, probably 50 h.p. of 10 hour power would be available.

The development of the site below the Reesor dam would involve the construction of about 750 feet of earth embankment and spillway, having a maximum height of 35 feet, and a power-house and wheelpit designed to meet local conditions. Added to this would be the cost of a transmission line to the village, the purchase price of the Milne and Reesor mill-sites, and the purchase of about

175 acres of additional back-water privileges. The expenditure which this represents would be justified if the development of several hundred horse-power were involved, but in view of the small quantity of power which the investment would provide, it does not require the compilation of a detailed estimate to prove the impracticability of the scheme from an economic standpoint.

The final conclusion is, therefore, that while the Milne and Reesor properties may be valuable assets to the present owners as mill-powers, they would be of little or no value to the Municipality as a dependable source of electrical energy.

It is possible that either one of the properties above mentioned might, in its present condition, be of some value to the Municipality for auxiliary purposes, as the capacity of either site at various stages of flow could be used to supplement the steam, and such pondage as would be available could be used on the peak load. The economy of this scheme would depend primarily upon the first cost of the site, and then upon the amount of investment necessary to adapt it for auxiliary service. There would probably be some difficulty in the matter of the first cost, as both sites are of more value to the present owners than they would be to the Municipality when the difference in the class of service required is taken into consideration.

October 30, 1912.

REPORT NO. VIII

Smith's Falls

The local source of hydraulic power for the Municipality is the Rideau Canal, power at Smith's Falls locks and at Old Sly's locks being developed at the present time. These water powers have the usual characteristics of canal powers. The supply of water is controlled primarily for navigation purposes, and it is impossible at the present time to make any accurate estimate of the dependable capacity of the various power sites from which Smith's Falls draws its present supply of hydraulic power. In this connection, it may be mentioned that there are two well-built wooden weirs in the waste gate channel of the lower locks. Barring leakage, this channel carries the whole surplus discharge of the Rideau River, and by measuring the head on these weirs night and morning the volume of flow available for power purposes throughout the year could be accurately ascertained. The work of measuring the head on these weirs could quite easily be done by the Engineer in charge of the Town pumping station, and the information thus obtained would be very valuable.

The power at the upper Smith's Falls lock is developed by the Citizens' Electric Co., above mentioned, the normal head being said to be about 9 feet. It is claimed that this site has a dependable capacity of 200 h.p. The wheels at present installed are of a vertical type operating on a jack-shaft, and the hydraulic installation as a whole probably operates at an efficiency not greater than 50 per cent. There are several industries at the lower Smith's Falls lock operating under heads varying from 13 to 18 feet, the water being divided between the industries on each side of the stream, the weirs above mentioned having been installed for the purpose of making this division. There is an available head at this point of about 25 feet, and physical conditions are such that this head could be economically developed if the various interests could be consolidated. A plant operating under this head might be expected to have a dependable capacity of 400 to 500 h.p.

The Smith's Falls Electric Power Co utilizes a 16 foot head at the Old Sly's locks, a mile and a half below the town. The hydraulic installation consists here also of vertical wheel settings with jack-shaft. It is stated that this plant has sufficient hydraulic capacity to carry the peak load of 480 h.p. from December to May, the steam auxiliary only being required during the navigable season.

In connection with the shortage of power during the navigation season, it is reported that large quantities of water are drawn out of the upper lakes during the summer to maintain navigable depth upon the lower reaches of the canal, and it is stated that the greater portion of the water thus drawn off is required to compensate for leakage through some of the older dams on the lower canal. While this statement has not been verified, there is no doubt that considerable leakage does take place through some of the older wooden dams on the system, and if these dams were rebuilt or properly repaired the power conditions would certainly be improved. The dependable hydraulic capacity at the Old Sly's locks under present conditions is probably in the neighborhood of 250 to 300 h.p., although as regards the estimated hydraulic capacity of this site and the other sites above mentioned, the records of weir measurements might possibly show better results, more especially if leakage through the various dams on the system were eliminated.

It is evident from the above that the power situation in Smith's Falls is a very complicated one, there being a limited supply of power on the Rideau Canal which could be delivered to the consumer at a price which transmitted power could probably not meet under any circumstances. The market for light and small blocks of power is divided between two existing companies, and although neither company is operating under a franchise, the parties in control have lived in the Town all their lives and there would probably be a strong local sentiment against any drastic measures which might be taken to eliminate them and clear the field for a municipal service. If the Municipality were to consider the question of purchase they could not, from a commercial standpoint, be advised to buy out both companies, and if it came to a matter of choice the plant of the Smith's Falls Electric Power Co. would seem to be the best one to consider, as they have the greater hydraulic capacity and the more comprehensive distribution system. It is to be noted that the only end gained by the purchase of this plant would be to eliminate competition without inflicting such injury upon the present owners as might be caused by entering into open competition with an independent plant, as the only physical asset of real value which the town would obtain would be the auxiliary steam plant which has recently been installed. To put the plant in proper operating condition the hydraulic portion of the plant would require to be practically rebuilt, and the distribution system would require to be almost entirely rewired and renovated.

As regards the best means of supplying the market requirements which exist over and above the capacity of the local plants, there are two schemes which appear feasible or which may become feasible. One is to supply the Municipality with power from High Falls on the Mississippi River. There would probably be sufficient continuous capacity at High Falls to supply the requirements of Smith's Falls and Perth for some years to come, but the supply from this source nevertheless has a definite limit which is not much in excess of the present requirements of these two towns. It is probable, however, that up to the limits of its capacity High Falls power could be supplied cheaper than from any other adequate or available source. On the other hand, if these towns wish to have a source of power with sufficient capacity available to meet all possible future needs the Chats development on the Ottawa River is the only one to consider.

Taking everything into consideration, from the standpoint of both the Municipality and the Commission, it would seem advisable to ascertain if the property of the Smith's Falls Electric Company can be obtained for a price within reason and if so, advise the Town to take over and remodel this system, put the charging rates on a proper basis, and take no further action until such time as the Commission is in a position to announce definitely its policy regarding the development at the Chats, and its final plans as to the means of supplying power to the Eastern Municipalities.

April 10, 1912.

REPORT NO. IX

Meaford

The hydraulic plant of the Georgian Bay Power and Milling Co. is located on Big Head Creek about a mile above the Town of Meaford, and a report on the same was required for the purpose of making recommendations in connection with the proposed purchase of the Company's power plant and distribution system by the Municipality, the object being to use the plant in connection with a temporary auxiliary steam installation until such time as the development of the market might make it necessary to enter into a contract with the Commission.

Dam :

The Company's dam was partially destroyed this spring by the flood, a section of about 200 ft. having been washed out completely. A spillway section about 225 ft. long still remains. This portion of the dam is still tight, being built of round logs with rock and gravel fill, and it has a good width of apron. The structure is founded on a very good quality of hard pan, and the proper replacing of the washed out portion of the dam does not present any structural difficulty.

Forebay :

The forebay consists of a small basin, to which access is given from the main pond by a short cut in which a wooden control gate is placed. The forebay embankment is a combination of dry wall and brush and clay fill, the cross section of the embankment being too light for absolute safety. The head block is a wooden structure and contains an iron trash rack and a wooden control gate for the flume.

Flume :

The flume is of wood stave construction with round iron hoops. The first section is 840 ft. in length and 6 ft. in diameter, and ends in a surge chamber built of squared timber. The remaining 260 ft. of flume is 5 ft. in diameter and contains a steel double elbow.

The wheel chamber is constructed of squared timber on a steel concrete foundation, and is fitted with a wooden surge pipe about 3 ft. in diameter. The flume is fairly well constructed and is in serviceable condition at the present time, although there was evidence of considerable leakage, and there was no apparent reason for the insertion of the steel elbow above mentioned. The main objection to the flume is that it is wrongly located, and that the rock and earth fill upon which it is laid without saddles or any other form of support is liable to cause more rapid depreciation and decay than would otherwise be the case.

The concrete foundations of the wheel chamber are in very bad condition and should be renewed, as the quality of the concrete is such as to make the foundation piers unsafe.

Tail-race :

The tail-race has not sufficient capacity for the discharge of tail water under full load, and a small additional expenditure in excavation would probably make available an extra 2 ft. of head.

Turbine:

There is one Barber wheel installed of the double horizontal central discharge type running at 300 r.p.m. with 30 in. diameter wheels.

Generator:

The generator is a C.G.E. 200 kw., 2,300 volt, 3-phase, 60 cycle, 600 r.p.m machine and is belted to the turbine shaft with a 2:1 pulley ratio. The belting of a 600 r.p.m. generator to the 300 r.p.m. turbine is not good practice, as the charge against loss of efficiency and extra power-house capacity will greatly exceed the extra charge on a 300 r.p.m. generator.

Power-House:

The power-house is of concrete construction with a wood roof, with living rooms adjoining the machine room, the structure being of substantial character and well preserved. The plant, as a whole, is awkwardly and inefficiently designed and is a very expensive one for the amount of power said to be available.

Power Capacity:

Very little definite information is available at the present time with regard to the capacity of the Company's power site, but they claim that 300 h.p. is available for eight months of the year, and at least 100 h.p. available for the remaining four months of the year. Taking into consideration the drainage area tributary to the plant and the available head, the minimum capacity of the plant might reasonably be estimated at 100 h.p., but whether or not a capacity of 300 h.p. can be maintained for eight months in the year is a matter requiring further investigation. For the purpose of this report, however, the capacities vouched for by the owners of the plant will be assumed. On this basis, therefore, the continuous supply of 300 h.p. will require auxiliary power, and inquiries made appear to indicate that a temporary auxiliary steam plant of 200 h.p. capacity can be provided for about \$5,000.00.

Cost to Produce Power:

Figures obtained from the Company indicate that the first cost of hydraulic plant amounted to \$12,052. Taking the different items of plant and equipment separately, and taking into consideration the respective number of years they had been in use, the present value of the plant works out about \$28,768.

It is estimated that the replacing of the washed out portion of the dam and sundry repairs and improvements to the hydraulic plant will require about \$13,000. The total capital investment necessary to make 300 h.p. continuously available would therefore be:—

Present value of existing plant	\$28,768 00
Alterations and repairs to power plant.....	13,000 00
Temporary auxiliary steam plant	5,000 00
	\$46,768 00

A fair estimate of Annual Charges would be:—

Operation and Administration	\$2,000 00	
Maintenance and Depreciation	2,159 00	
Auxiliary steam—200 h.p. at \$15.00	3,000 00	
Annual payment on Municipal Loan (proportion)	2,420 00	
Total Capital Cost	\$46,768 00	
Municipal Loan (Proportion)	16,810 00	
Cash Balance	\$29,958 00	
Fixed Charges, 6.8% on \$29,958.00		2,040 00
Insurance, etc., ½% on \$46,768.00		239 00
		\$11,858 00

The total annual cost to produce 300 h.p. is, therefore, \$11,858, or an average annual cost of \$39.50 per h.p. per year.

The high costs derived above are due to two causes.—first, to the small quantity of power available in proportion to the capital investment, and second, to the abnormally high maintenance and depreciation charge which the type of construction necessitates. If this plant continues under private ownership, the proprietors, by economical operation and by ignoring the annual liability of depreciation and proper maintenance, may for a few years produce and sell power at a price which might be acceptable to the Town of Meaford, but the Commission could not recommend the purchase of the plant as a valuable hydraulic property.

May 11, 1912.

REPORT NO. X

Chesley

The local source of hydraulic power available for the Municipality of Chesley is the north branch of the Saugeen River, which flows through the town, and at the request of the Municipal authorities, the Hydro-Electric Commission made certain surveys, and for some months past has carried on investigations with a view to ascertaining whether a sufficient quantity of power could be developed to meet the requirements of the Municipality at reasonable cost.

The matter of first importance in this investigation was the determination of the volume of stream flow at various seasons of the year, and since July, 1911, monthly measurements of flow have been made at a cross-section located a short distance below the town, the results to date being tabulated hereunder:—

Date of measurement.		Flow in cubic feet per second.	Date of measurement.		Flow in cubic feet per second.
July	17, 1911.....	164	Jan.	24, 1912.....	180
Aug.	16 ".....	140	Feb.	21 ".....	180
Sep.	13 ".....	168	Mar.	26 ".....	233
Oct.	13 ".....	174	Apl.	11 ".....	2,150
Nov.	7 ".....	185	Apl.	24 ".....	369
Dec.	19 ".....	181			

In view of the fact that the area of watershed above Chesley is only about 88 sq. miles, according to the best existing maps, the condition evidenced by the above records is most remarkable. The August measurement of 140 sec. ft. was the minimum and shows a minimum run-off of 1.99 sec. ft. per square mile of watershed, a figure which far exceeds that of any other stream in the Province as far as is known at the present time. Owing to the possibility that the August measurement may not have been taken at the extreme low stage of flow, the capacity of the stream will be based upon a minimum flow of 100 sec. ft., and even this figure will be considered as open to question until further measurements have been made during periods of low water.

A discharge of 100 sec. ft. will produce about eight (8) continuous 24 hr. electrical horse power per foot of head. Assuming that it would be advisable to have not less than 200 h.p. of continuous capacity available under conditions of minimum flow, the development of a 25 foot head would be necessary. The site best fulfilling this condition is just below the town, and takes in Elliott's mill and tailrace and a long bend in the stream immediately below. A detailed survey of this site showed a difference in level of 29 feet between Elliott's mill-pond and the foot of the bend, and the contours as developed showed that a head of 25 to 30 feet could be controlled with a reasonable amount of back-water damage.

The difference in level between the head and foot of the bend was 11 feet at the time the survey was made, and the topography of the site is such that two equally efficient schemes of development are possible, namely:—

To build a dam at the foot of the bend controlling the full head up to Elliott's mill-pond and to place the power-house beside the dam; or:—

To build a smaller dam at the head of the bend controlling the head up to Elliott's mill-pond, and to excavate a head-race across the neck of the bend, placing the power-house at the lower end of the same.

As regards rights and privileges, the first scheme would entail:—

- (1) Purchase of the Elliott property.
- (2) Purchase of flooding rights above the dam amounting to approximately 102 acres, exclusive of the Elliott property.

- (3) Purchase of the site for the power-house and dam and entrance to same.

The second scheme would entail:—

- (1) Purchase of the Elliott property.
- (2) Purchase of flooding rights above the dam, amounting to approximately 20 acres, exclusive of the Elliott property.

- (3) Purchase of site and right-of-way for dam and head-race.

- (4) Purchase of site for power-house and entrance to same.

- (5) Purchase of riparian privileges along the course of the stream between the dam and power-house, made necessary by the possible diversion of the full flow through the head-race during periods of low water.

In the estimates submitted herewith, no allowance has been made for the costs relative to the above items, as they can be appraised more accurately by the local authorities. Any sums which it may be necessary to expend in acquiring development rights and privileges under either scheme can simply be added to the total capital costs as given in the estimates. The annual costs in the estimates must also be increased by the amount of the interest and sinking fund charges on the above sums.

The estimates for each scheme cover the capital cost of a first-class, permanent installation with a concrete dam and power-house, and two hydro-electric units each of 200 h.p. capacity. The dam, wheel-pits and power-house foundations are large items of the capital cost, owing to the nature of the material on which they would be built. The expenditure necessary to make these structures safe and permanent is greatly in excess of what would be necessary if they were founded upon rock.

The annual costs include interest on capital investment, a sinking fund charge sufficient to retire the total debenture issue in 30 years, maintenance and depreciation, operation and administration, and an allowance for insurance and sundries.

As to which scheme of development is the better, it will be noted that scheme No. 1 will provide a much greater area of pondage and consequently more 10 hr. power capacity, than scheme No. 2, but a final decision on the matter should be withheld until the cost of acquiring the various development rights and privileges relative to each scheme has been ascertained.

Scheme No. 1:

Involving the construction of a dam controlling the total head, and located beside the power-house at the foot of the bend.

Capital Cost:

Dam, Power-house and Permanent Works	\$41,620 00
Hydro-Electric Equipment	12,100 00
Excavation and fill	4,110 00
Total	\$58,830 00
Engineering and Contingencies, 10%	5,883 00
Interest during Construction, 3%	1,765 00
Total Capital Cost	\$66,478 00

Annual Charges:

Maintenance and Depreciation	\$974 00
Annual Interest and Sinking Fund, 6.8% on \$66,478	4,525 00
Operation and Administration	2,000 00
Insurance, etc., $\frac{1}{2}$ % on \$66,478	332 00

Total Annual Charges \$7,831 00

Annual Cost of 200 h.p. 24 hr. power, delivered at switchboard, \$39.15 per h.p.

Annual Cost of 400 h.p. 10 hr. power, delivered at switchboard, \$19.58 per h.p.

Scheme No. 2:

Involving the construction of a dam at the head of the bend, and the excavation of a head-race between dam and power-house.

Capital Cost:

Dam, Power-house and Permanent Works	\$32,755 00
Hydro-Electric Equipment	13,100 00
Excavation and fill	9,150 00

Total \$55,005 00

Engineering and Contingencies, 10% 5,500 00 |

Interest during Construction, 3% 1,650 00 |

Total Capital Cost \$62,155 00

Annual Charges:

Maintenance and Depreciation	\$944 00
Annual Interest and Sinking Fund, 6.8% on \$62,155	4,225 00
Operation and Administration	2,000 00
Insurance, etc., $\frac{1}{2}$ % on \$62,155	311 00

Total Annual Charges \$7,480 00

Annual Cost of 200 h.p. 24 hr. power delivered at switchboard, \$37.40 per h.p.

Annual Cost of 400 h.p. 10 hr. power delivered at switchboard, \$18.70 per h.p.

If it is considered advisable at the outset to install only one 200 h.p. unit, the capital cost under Scheme No. 1 would be \$59,000, and under Scheme No. 2, \$54,700.

For Scheme No. 1 a fair estimate of Annual Charges would be:

Maintenance and Depreciation	\$700 00
Annual Interest and Sinking Fund, 6.8%	4,000 00
Operation and Administration	1,500 00
Insurance, etc.	295 00

Total Annual Charges \$6,495 00

Annual Cost of 200 h.p. delivered at switchboard, \$32.48 per h.p.

For Scheme 2:

Maintenance and Depreciation	\$700 00
Annual Interest and Sinking Fund, 6.8%	3,700 00
Operation and Administration	1,500 00
Insurance, etc.	274 00

Total Annual Charges \$6,174 00

Annual cost of 200 h.p. delivered at switchboard, \$30.87 per h.p.

May 16th, 1912.

REPORT NO. XI

Burnt River

Burnt River rises in the Townships of Dudley, Harcourt and Monmouth in the District of Haliburton, flows in a south-westerly direction and empties into Cameron Lake on the Trent Valley Canal in the County of Victoria.

Its drainage area above Burnt River Station is approximately 421 square miles.

The recorded mean annual rain fall at Haliburton is about 29.66 inches, and it is assumed that $33\frac{1}{3}$ per cent. of the total precipitation over the water-shed, or 9.89 inches, would be available for power purposes. This estimate seems conservative considering the favorable geological and topographical features of the water-shed.

A run-off of 9.89 inches from a water shed of 400 square miles would produce a total discharge of 9,760 million cubic feet per annum which, if totally conserved, would give a continuous uniform discharge of about 306 sec. feet or 25.5 continuous 24 hour electric horse-power per foot of head at Burnt River.

The above figures merit consideration owing to the fact that the large lake area in the upper water-shed of the Burnt River affords unusually good facilities for improvement of flow conditions by means of artificial storage.

The storage capacity of these lakes, fully developed, would amount to about 4,000 million cubic feet according to an approximate estimate.

This volume of storage is nearly half of the total estimated volume of run-off from the water shed, so that there is no doubt that the installation of storage works would materially improve the flow characteristics of the Burnt River. A peculiar feature of the Burnt River water shed is that all the storage basins are located in the head waters of the stream, the tributary water-shed being about 270 sq. miles in extent. The remaining 150 sq. miles of water shed above Burnt River Station contains no storage basins worthy of consideration. This condition is a distinct disadvantage in that no facilities are afforded for centralization of control or for peak load storage, so that the flow can be regulated only with a view to making the discharge as uniform as possible and nothing more.

A storage capacity of 4,000 million cubic feet would provide a continuous discharge of about 190 sec. feet for 8 months in the year, which would be considered as being the volume of regulated flow available for power purposes, as the non-regulated surplus run-off of 5,700 million cubic feet should be able to maintain this minimum for the remaining 4 months of the year.

This discharge would give 16 e.h.p. per foot of head at Long Rapids near Burnt River Station, or at High Falls a few miles up the river where the flow would be practically the same.

During the latter part of June an examination was made of Burnt River from Kinmount to Burnt River Station, a distance of about 9 miles, and it was found that there are two possible power sites in that district. Each is really a long rapid, the first, High or Great Falls, having a total fall of about 24 feet and the second Long Rapids, a fall of from 14 to 15 ft.

At High Falls a head of 27 feet might be realized by a comparatively inexpensive development, while at Long Rapids probably a head of 19 feet might be

obtained. With a capacity of 16 e.h.p. per foot of head at High Falls there could be developed 432 e.h.p. and at Long Rapids 304 e.h.p., or a combined 24 hour capacity of 736 e.h.p. Both developments would be deficient in 10 hour capacity owing to there being practically no pondage.

Should it be decided to develop only one of these powers, High Falls would be the preferable to Long Rapids. For temporary storage purposes the present lumbermen's dams on the Upper Lakes would suffice.

July 22, 1912.

REPORT NO. XII

Mountain Lake

The Mountain Lake power site is owned by F. S. Wilson, Esq., of the J. C. Wilson Co. of Glenora, and hydraulic power is produced for the purpose of operating a machine shop, foundry and grist mill. The machine shop runs practically continuously six days a week, eleven hours a day, and uses about 28 h.p., while the grist mill and a storehouse, which use the greater amount of power, operate intermittently, being frequently closed for a week or more at a time.

The gross operating head is between 165 and 170 feet, the mean effective head being probably not less than 160 feet.



Mountain Lake, Approach Channel to Weir.

Although there is sufficient turbine capacity installed to generate about 130 h.p. it is probable that 75 h.p. would amply cover the average annual demand. On a basis of 66 hours a week operation the annual expenditure of energy would therefore, be about 257,400 h.p. hours. If this amount of energy were expended uniformly and continuously over the whole year of 365 days, it would be equivalent to about 30 h.p. continuous 24 hour power. With the turbine installation at present existing, this amount of power would be produced by a continuous uniform outflow from the lake of about 3 cu. ft. per second. Allowing 2 cu. ft. per second for leakage, the total discharge required would, therefore, be 5 second feet.

Five second feet flowing for one year would deliver a total volume of 157,680,000 cu. ft. of water. The area of the lake with its tributary water-shed could be reasonably taken at 600 acres, and assuming 12 inches of precipitation available for power purposes, the total surface inflow into Mountain Lake would amount to 26,136,000 cu. ft. per annum. Subtracting this amount from the total quantity above specified as being delivered to the wheels, leaves a remainder of 131,544,000 cu. ft., which is, therefore, the annual volume of delivery from underground sources. This volume of underground supply is equivalent to continuous

uniform flow of 4.2 cu. ft. per second, which, on the basis of the above assumptions, would be the average volume of discharge from the underground supply.

The above figures constitute practically all the information that could be derived from the data in existence when the investigation of the power site first came up for consideration.

Owing to the existence of a market for power in the Town of Picton, about 4 miles from the power site, it was considered necessary to investigate conditions in greater detail in order to ascertain definitely whether or not there existed in this power site a sufficient capacity to supply the requirements of the town, and in this connection the first step was to devise some means of accurately measuring the discharge out of the lake.

The lake is located at the top of a precipitous hill on the south shore of Picton Bay, the difference in level between the Bay and the Lake being ordinarily about 175 feet, the shores of the two bodies of water being not more than 600 feet apart. The water is carried from the lake through a small head gate and several hundred feet of riveted steel pipe to which the various wheels are connected at the foot of the hill. Owing to the leakage in the pipe and the absence of data relating to the volume of discharge through the wheels, it was necessary to use some other means of measuring the discharge from the lake. It was found upon examination that the only practical means of doing this was to excavate a channel about 150 feet long from the lake into the bed of a small brook, which was evidently at one time the lake's natural outlet. This channel was excavated 12 ft. wide and to an average depth of about 2 ft., and at the head of it was placed a sharp crested weir having a clear width of 12.01 feet. With the weir so placed it was possible to get the maximum head of $11\frac{1}{2}$ inches on the crest, which was equivalent to a total discharge of about 37.6 cu. ft. per second. Discharge readings were taken on this weir at intervals of 15 minutes between 3.15 p.m. on Sept. 7th and 3.15 a.m. on Sept. 8, the work having been done on Sunday in order that the mills could be closed down and the head gate tightly closed. The readings taken over this 12 hour interval showed a total volume of 1,450,202 cu. ft. and it was also observed that during this 12 hour period the surface of the lake had dropped 1.56 inches. This drop in water level indicated that the measured outflow was composed of the underground discharge plus a volume of water corresponding to a drop in lake level of 1.56 inches.

During the course of the investigation an accurate stadia survey was made of the lake, and the area was found to be 9,352,000 sq. ft., or about 215 acres, so that 1.56 inches drawn off this area would mean a total volume of 1,215,760 cu. ft. which was discharged over the weir. As above mentioned, the total discharge over the weir amounted to 1,450,202 cu. ft., so that the difference between these two totals, which amounts to 234,442 cu. ft., is a measure of the volume of supply from underground sources. This volume of flow delivered for a period of 12 hours is equivalent to a continuous discharge of about 5 cu. ft. per second, which is one of the results which the experiment was designed to supply.

At the conclusion of the above mentioned 12 hour period, the discharge was entirely shut off and it was found that for a subsequent 12 hour period the lake showed no tendency to fill up, the gauge readings being practically the same at the end of the second 12 hour period as at the beginning. In this connection, it is to be noted that the supply from which the lake was to be refilled had been ascertained to be 5 cu. ft. per second. With this volume of inflow it would require about 80.5 hours for the lake to fill to the original level, which would be at the

rate of slightly less than $\frac{1}{4}$ -in. every 12 hours. The slow rate of refilling, therefore, accounts to a certain extent for the absence of appreciable variation in level during the second 12 hour period, but sufficient evidence was obtained in any event to prove that the recuperative capacity of the lake is very small.

From the above, therefore, it seems evident that while the lake appears to be supplied by springs having a very large volume of discharge, the dependable power capacity would not be more than 15 h.p., and that while the site is eminently suited to the purpose for which it is now utilized, it cannot be considered an adequate source of power for general industrial purposes.

It is, of course, possible that if the lake level could be materially lowered a corresponding increase of flow from the springs could be anticipated. The lowering of the lake level would tend to reduce the power capacity through the reduction in head, and this would, to a certain extent, effect the tendency to augment the power capacity through the result of the increase in flow, so that there would be what might be termed a critical head at which the maximum power capacity would be realized. This critical head could, of course, only be ascertained by very expensive experimental procedure. As an example of what the result might be, it might be assumed that by lowering the lake 20 feet the discharge from the springs might be tripled, so that there would be a discharge of 15 sec. ft. operating under a head of 145 feet. This would produce about 198 mechanical horse power. It would seem, therefore, that under no conditions would the site have sufficient power capacity to make it an attractive commercial proposition.

While the work preparatory to the experiment was being done the records were kept of variations of lake level. During the first week of operations, when the machine shop only was running, the water level remained practically constant, while during the second week when the machine shop and grist mill were both running, the water level dropped about two inches, notwithstanding the fact that heavy rains occurred during that interval. During the second week of the observations, therefore, the power required to run the mills absorbed about 1,500,000 cu. ft. from storage in addition to the normal inflow from the springs, plus the precipitation during that interval. This affords additional evidence of the small capacity of the source of underground supply.

Sept. 25, 1912.

STREAM=FLOW DATA

BEAVER RIVER

Station.	Date of measurement.	Gauge Height.	Discharge in cubic feet per second.	Estimated run-off in sec. ft. per sq. mile.	Remarks.
Eugenia Falls.....	Feb. 25, 1912.....		71	.96	(a) Flood conditions 0.8 ft. above level of 1911.
"	Apr. 12, 1912.....		868 (a)	11.73	
Thornbury.....	Aug. 22, 1912.....		234	.92	
"	Sep. 23, 1912.....		215	.85	
"	Oct. 24, 1912.....		225	.89	

BLANCHE RIVER

Englehart	Aug. 1, 1911.....		461	2.00	
"	Aug. 31, 1911.....		233	1.00	
"	Oct. 11, 1911.....		147	.64	
"	Jan. 11, 1912.....		191	.83	
"	Mar. 7, 1912.....		122	.53	
"	Mar. 30, 1912.....		161	.70	

BOYNE RIVER

Allistou	June 11, 1912.....		66	.85	(a) Estimated from surface flow. No velocity for metering.
"	July 6, 1912.....		12 (a)	.....	
"	Aug. 9, 1912.....		66	.86	
"	Sep. 13, 1912.....		27	.36	
"	Oct. 13, 1912.....		50	.65	

CREDIT RIVER

Cataract Jet.....	June 24, 1912....	10.15	52	.57	(a) Water rose during time of measurement.
"	July 22, 1912....	10.30	67	.73	
"	Aug. 29, 1912....	10.20	54	.59	
"	"	10.30	76 (a)	.84	
"	Sep. 30, 1912....	10.40	87	.96	
"	"	10.50	98	1.07	
"	Oct. 31, 1912....	10.20	53	.59	
"	"	10.40	90	.99	

GRAND RIVER

Brantford	Aug. 14, 1912.....		1,271 (a)	.58	(a) 4 miles above Brantford.
"	Sep. 17, 1912.....		3,754 (b)	1.72	
"	Oct. 16, 1912.....		1,500	.69	
Glenmorris	Aug. 14, 1912.....	13.12	823	.54	(b) T. H. B. bridge and Western Counties Canal.
"	Sep. 18, 1912.....	13.82	1,664	1.09	
"	Oct. 17, 1912.....	13.32	883	.58	
Blair	Aug. 15, 1912.....	17.00	433	.42	
"	Sep. 19, 1912.....	17.6	1,113	1.10	
"	Oct. 18, 1912.....	16.9	377	.37	
Elora	Aug. 16, 1912.....	5.4	129	.25	
"	Sep. 20, 1912.....	5.75	243	.46	
"	Oct. 18, 1912.....	5.50	133	.25	

GULL RIVER

Station.	Date of measurement.	Gauge height.	Discharge in cubic feet per second.	Estimated run-off in sec. ft. per sq. mile.	Remarks.
Minden	July 27, 1911		532	1.33	(a) Possibly in error.
"	Sept. 6, 1911		546	1.36	
"	Oct. 9, 1911	4.9 (a)	642	1.60	NOTE.—This river regulated by artificial storage for Trent Valley Canal.
"	Nov. 3, 1911	4.2	448	1.12	
"	Dec. 9, 1911	5.45	696	1.74	
"	Jan. 10, 1912	4.9	569	1.42	
"	Feb. 9, 1912	4.1 (a)	410	1.02	
"	Mar. 8, 1912	3.8 (a)	405	1.01	
"	Apr. 15, 1912	6.6	1,124	2.81	
"	May 15, 1912	7.3	1,613	4.03	
"	June 13, 1912	5.7	780	1.95	
"	July 15, 1912	7.0	1,561	3.90	

MAGNETAWAN RIVER

Katrine (a)	June 15, 1912		473	3.13	(a) Above Doe Lake.
"	July 4, 1912		192	1.27	
"	Aug. 3, 1912		105	.69	
"	Sep. 5, 1912		107	.71	
"	Oct. 7, 1912		132	.87	
Burk's Falls	June 14, 1912		1,504	4.18	
"	July 5, 1912		340	.94	
"	Aug. 4, 1912		240	.67	
"	Sep. 6, 1912		251	.69	
"	Oct. 5, 1912		330	.91	
Byng Inlet	Oct. 10, 1912	3.6	391	.....	

MAITLAND RIVER

Benmiller	May 19, 1911	14.27	979	1.03	(a) Gauge heights not reliable, due to ice conditions.
"	June 14, 1911	13.80	549	.58	
"	July 30, 1911	13.60	306	.32	
"	Aug. 11, 1911	13.37	172	.18	(b) Discharge estimated from surface velocity.
"	Sep. 18, 1911	13.39	170	.18	
"	Oct. 16, 1911	13.55	257	.28	
"	Nov. 20, 1911	15.34	4,069	4.28	(c) Measurements taken two miles below Benmiller on account of ice:
"	Dec. 22, 1911	14.3 (a)	1,280	1.34	
"	Jan. 27, 1912	(a)	752 (c)	.79	
"	Feb. 29, 1912	(a)	506 (c)	.53	
"	Mar. 28, 1912	(a)	2,117	2.22	
"	Apr. 6, 1912	18.80	23,582 (b)	24.75	10.15 a.m.
"	Apr. 6, 1912	20.26	41,061 (b)	43.35	1.00 p.m.
"	Apr. 7, 1912	21.60	65,205 (b)	68.66	10.30 a.m. peak of flood.
"	Apr. 26, 1912	14.40	1,437	1.51	
"	May 30, 1912	16.13	5,815	6.12	
"	June 27, 1912	13.47	237	.25	
"	July 25, 1912	13.77	496	.52	
"	Aug. 26, 1912	14.17	929	.98	Heavy rains.
"	Sep. 26, 1912	14.37	1,405	1.48	"
"	Oct. 29, 1912	13.97	824	.87	"
Wingham (d)	June 17, 1911		218	.37	(d) Metering station below confluence of main stream and Harriston Creek.
"	July 18, 1911		140	.24	
"	Aug. 12, 1911		86	.15	
"	Sep. 19, 1911		81	.14	
"	Oct. 14, 1911		166	.28	
"	Nov. 19, 1911		2,446	4.17	
"	Dec. 19, 1911		879	1.49	

MUSKOKA RIVER

Station.	Date of measurement.	Gauge height.	Discharge in cubic feet per second.	Estimated run-off in sec. ft. per sq. mile.	Remarks.
High Falls (a).....	Sep. 8, 1911.....		124	.13	(a) North Branch,
"	Sep. 26, 1911.....		123	.13	above Bracebridge.
"	Sep. 26, 1911.....		104 (b)	.11	(b) Below Port Sydney.
"	June 6, 1912.....		2,828	2.91	ney.
"	July 3, 1912.....		150	.15	(c) South Branch,
"	Aug. 2, 1912.....		193	.20	above Bracebridge.
"	Sep. 4, 1912.....		215	.22	(d) Log drive raised
"	Oct. 4 1912.....		391	.40	water 3 ft. in a few
South Falls (c).....	Sep. 9, 1911.....		303	.39	hours.
South Falls.....	Sep. 27, 1911.....		271	.35	(e) Below Muskoka
Tretheweys Falls ..	Aug. 2, 1912....	16.60	1,337	2.03 (d)	Lake.
"	Sep. 4, 1912....	13.30	349	.53	
"	Oct. 5, 1912....	13.50	414	.63	
Bala (e)	Oct. 12, 1912....		1,663	.71	

NOTTAWASAGA RIVER

Nicholson (a).....	June 11, 1912....	7.00	426	1.31	(a) Station at Mc-
"	July 6, 1912....	5.61	197	.61	Lean's bridge.
"	Aug. 9, 1912....	5.60	190	.58	
"	Sep. 12, 1912....	5.54	156	.48	
"	Oct. 13, 1912....	6.42	260	.80	

ROUGE CREEK

Markham	May 14, 1912....		24 (a)	.36	(a) Below Reesor's
"	May 14, 1912....		23 (b)	.36	dam.
"	June 21, 1912....		23 (a)	.36	(b) Above Milne's
"	July 16, 1912....		7 (a)	.10	dam.
"	Aug. 17, 1912....		11 (a)	.16	NOTE.—Volume of
"	Sep. 14, 1912....		43 (a)	.66	flow governed by
"	Oct. 14, 1912....		69 (a)	1.06	operation of mills up
					stream.

SAUGEEN RIVER.

Port Elgin.....	July 7, 1911....	4.65	491	.31	(a) Error in gauge
"	Aug. 17, 1911....	4.55	399	.25	reading evident.
"	Sep. 20, 1911....	4.65	506	.32	(b) Gauge heights
"	Oct. 13, 1911....	5.10	692	.44	not reliable owing
"	Nov. 17, 1911....	(a)	4,704	3.01	to ice conditions.
"	Dec. 20, 1911....	(b)	1,473	.94	
"	Jan. 25, 1912....	(b)	2,308	1.40	(c) Gauge height
"	Feb. 24, 1912....	5.30 (b)	876	.56	20.0 on April 8,
"	Mar. 27, 1912....	7.00	1,922	1.23	1912, at peak of
"	Apl. 10, 1912....	13.80	19,436 (c)	12.45	flood.
"	Apl. 25, 1912....	8.20	4,028	2.58	
"	May 29, 1912....	8.20	4,323	2.77	
"	June 26, 1912....	5.70	1,066	.68	
"	July 23, 1912....	5.70	1,116	.71	
"	Aug. 25, 1912....	6.10	1,482	.95	
"	Sep. 25, 1912....	6.50	1,965	1.26	
"	Oct. 27, 1912....	6.1	1,502	.96	
Walkerton.....	June 26, 1912....	15.65	679	.76	
"	July 23, 1912....	15.80	734	.82	
"	Aug. 23, 1912....	16.00	806	.90	
"	Sep. 26, 1912....	16.00	812	.91	
"	Oct. 25, 1912....	16.00	814	.91	

SAUGEEN RIVER.—Continued.

Station.	Date of measurement.	Gauge height.	Discharge in cubic feet per second.	Estimated run-off in sec. ft. per sq. mile.	Remarks.
Chesley	July 17, 1911....	3.95	164	1.82	(a) Gauge height measured in heavy
"	Aug. 16, 1911....	3.85	140	1.56	wind.
"	Sep. 13, 1911....	4.00	168	1.86	(b) Gauge height 8.2
"	Oct. 13, 1911....	4.20	174	1.94	on April 8, 1912.
"	Nov. 7, 1911....	4.20 (a)	185	2.06	(c) Mill above closed
"	Dec. 19, 1911....	4.20	181	2.01	for 2½ days.
"	Jan. 24, 1912....	4.20	180	2.00	
"	Feb. 21, 1912....	4.20	179	2.00	
"	Mar. 26, 1912....	4.50	233	2.56	Note.—Volume of
"	Apl. 11, 1912....	7.50	2,151 (b)	23.89	flow governed by
"	Apl. 24, 1912....	.....	369	4.10	operation of mills
"	May 28, 1912....	4.50	236	2.62	up stream.
"	June 25, 1912....	3.85	182	2.02	5.15 p.m.
"	June 25, 1912....	3.40	100	1.11	7.15 p.m.
"	July 24, 1912....	3.80	168	1.86	4.00 p.m.
"	July 24, 1912....	3.80	102	1.13	7.35 p.m.
"	Aug. 23, 1912....	3.30	96	1.07	10.30 p.m.
"	Aug. 24, 1912....	3.75	169	1.87	10.30 a.m.
"	Sep. 25, 1912....	3.50	118	1.31	5.00 p.m.
"	Sep. 25, 1912....	3.20	78	0.859	7.00 p.m.
"	Oct. 28, 1912....	3.50	121 (c)	1.35	

SEGUIN RIVER.

Parry Sound.....	June 8, 1912....	11.10	1,406	3.87	
"	July 5, 1912....	9.00	293	.81	
"	Aug. 8, 1912....	8.00	189	.52	
"	Sep. 11, 1912....	8.40	244	.67	
"	Oct. 11, 1912....	6.20	121	.33	

SEVERN RIVER

Washago (a)	June 5, 1912....	19.90	6,173 (b)	2.97	(a) Outlet of Lake
"	July 3, 1912....	17.00	3,469	1.67	Simcoe.
"	Aug. 1, 1912....	15.90	2,250	1.08	(b) Heavy rains for
"	Sep. 3, 1912....	15.80	2,118	1.02	3 weeks.
"	Oct. 3, 1912....	15.30	1,700	.82	

SOUTH RIVER

Powassan.....	Mar. 19, 1912....	.....	136	.42	
"	Apr. 1, 1912....	.....	231	.72	
"	June 7, 1912....	28.30	1,091	3.40	
"	July 4, 1912....	24.40	174	.54	
"	Aug. 5, 1912....	24.50	214	.67	
"	Sep. 7, 1912....	24.50	213	.67	
"	Oct. 7, 1912....	24.60	265	.82	

STURGEON RIVER

Sandy Falls.....	Aug. 5, 1912	33.80	1,869	.85	
"	Sep. 9, 1912	33.30	1,543	.70	
"	Oct. 8, 1912	33.80	1,800	.82	

THAMES RIVER

Station.	Date of measurement.	Gauge height.	Discharge in cubic feet per second.	Estimated run-off in sec. ft. per sq. mile.	Remarks.
London (a)	Mar. 12, 1912.....		284	.23	(a) On main stream.
"	June 29, 1912....	5.98	250	.20	
"	July 26, 1912....	5.90	195	.15	
"	Aug. 27, 1912....	6.30	435	.34	heavy rains.
"	Sep. 27, 1912....	6.90	994	.78	
"	Oct. 30, 1912....	6.40	596	.47	

WAHNAPIITAE RIVER

Wahnapitae.....	Aug. 7, 1912....	32.00	1,807	1.98
"	Sep. 10, 1912....	32.20	1,983	2.18
"	Oct. 9, 1912....	32.00	1,794	1.97

MISCELLANEOUS DISCHARGE MEASUREMENTS

River.	Date.	Discharge sec. ft.	Location.
Big Turtle.....	Sep. 8, 1912.....	542	Sand Island Falls.
Driftwood.....	Mar. 22, 1911.....	39	Monteith.
English.....	May 26, 1906.....	6,740	Pelican Falls.
"	June 2, 1906.....	6,702	Manitou Rapids.
Kaministiquia	Aug. 12, 1905.....	2,737	Fort William.
"	Sep. 6, 1905.....	2,091	Tonkin's Farm.
"	Oct. 6, 1905.....	1,355	"
"	Feb. 3, 1906.....	1,100	Kakabeka Falls.
"	Mar. 10, 1906.....	880	"
"	Sep. 8, 1905.....	882	Silver Falls.
"	Jan. 28, 1906.....	662	Silver Falls.
"	Mar. 6, 1906.....	494	Silver Falls.
Kawakashkagama.....	Sep. 20, 1906.....	159	Howard's Falls.
Montreal	Jan. 8, 1908.....	930	Gillies Siding.
Moir.....	Oct. 25, 1905.....	700	Belleville.
"	Nov. 8, 1905.....	590	"
"	Dec. 5, 1905.....	946	"
Nipigon.....	Sep. 15, 1905.....	8,924	Pine Portage.
"	Nov. 3, 1905.....	7,014	Cameron's Pool
"	Feb. 9, 1906.....	5,982	"
"	Mar. 23, 1906.....	5,879	"
"	Sep. 30, 1906.....	5,884	"
Onaping	Jan. 1906.....	254	High Falls.
Pic.....	Aug. 5, 1906.....	154	Lake Superior Portage.
Rainy	Oct. 25, 1905.....	14,145	Fort Frances.
"	Apr. 1, 1906.....	6,805	Fort Frances.
"	Sep. 26, 1910.....	5,229	Fort Frances.
Sturgeon (Nipissing).....	Jan. 19, 1906.....	1,230	Smoky Falls.
Severn	Aug. 22, 1905.....	1,206	Big Chute.
"	Nov. 9, 1905.....	1,503	Big Chute.
Sturgeon (Thunder Bay)	July 26, 1906.....	251	Beaver Falls.
Seine.....	July 9, 1906.....	1,842	Island Falls.
Trent	Oct. 16, 1905.....	2,200	Trenton.
"	Oct. 25, 1905.....	2,460	"
"	Nov. 7, 1905.....	2,196	"
"	Nov. 16, 1905.....	2,090	Healey Falls.
Vermilion	Jan., 1906.....	791	Wabageshik Chute.
Winnipeg	Oct. 14, 1905.....	5,321	Eastern Outlet.
"	Apr. 8, 1906.....	4,490	"
"	Oct. 16, 1905.....	899	L. of W. Milling Co. head-race.
"	Oct. 16, 1905.....	400	Keewatin Lumber Co. flume
"	Oct. 18, 1905.....	21,794	Western Outlet.
Wabigoon.....	Oct. 9, 1905.....	206	Dryden.
Whitefish	Jan., 1906.....	207	Whitefish Falls.
"		146	Below Panache Lake.
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SEVENTH ANNUAL REPORT
OF THE
ONTARIO RAILWAY
AND
MUNICIPAL BOARD

To December 31st, 1912

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

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TO HIS HONOUR SIR JOHN MORISON GIBSON, Knight Commander of the Most Distinguished Order of St. Michael and St. George, a Colonel in the Militia of Canada, etc., etc., etc.

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to transmit herewith the Seventh Annual Report of the Ontario Railway and Municipal Board for the year ending December 31st, 1912.

Respectfully submitted,

J. J. FOY,

Attorney-General.

Parliament Buildings,
Toronto, April 14th, 1913.

TORONTO, April 14th, 1913.

Re Seventh Annual Report.

DEAR SIR,—I have the honour to send you herewith the Seventh Annual Report of the Ontario Railway and Municipal Board to December 31st, 1912.

I have the honour to be,
Your obedient servant,

H. C. SMALL,
Secretary.

The Honourable the Attorney-General,
Legislative Buildings, Toronto.

Enc. and Del.

SEVENTH ANNUAL REPORT OF The Ontario Railway and Municipal Board

TO DECEMBER 31st, 1912

To the HONOURABLE SIR JOHN GIBSON, K.C.,

Lieutenant-Governor of the Province of Ontario in Council.

In pursuance of section 56 of "The Ontario Railway and Municipal Board Act, 1906," the Ontario Railway and Municipal Board beg leave respectfully to submit their Seventh Annual Report.

APPLICATIONS TO THE BOARD.

There were 434 formal applications made to the Board in 1912. Of the formal applications, all those in which the parties were ready to go to trial have been heard and disposed of, except in a few cases where adjournments were granted to the parties at the request of counsel, or in order to procure further evidence.

A good many of the formal applications are still standing for trial, but the parties are not yet ready to go to trial, as in the more important matters the parties interested are showing an increasing disposition to take advantage of the opportunities afforded them by the Board's Rules for obtaining discovery and production, thus, in some manner, delaying the final dates of the hearing of the applications, but in reality facilitating the final disposition at the hearings of the matters in question between the parties.

The amount of revenue collected by the Board in Law Stamps in the year 1906 was \$134.50; in 1907, \$703; in 1908, \$1,640.50; 1909, \$2,484; in 1910, \$2,177; in 1911, \$2,279.50; and in 1912, \$3,487.

REPORTS TO THE HOUSE.

In pursuance of Rule 61a of the House the Board has made enquiry and reported on nine Financial Bills which were introduced at the last session of the Legislature. In conducting the necessary investigations into these Bills it was found that the management of municipal finances is, in many cases, negligent, and the conditions of same confused and unsatisfactory. The Board is confirmed in its opinion already formed that it might be advisable, after consideration, to separate the offices of Municipal Clerk and Treasurer, and make provision that these two offices shall not be held by the one individual. Except in rare instances the dual position seems to almost necessarily entail confusion in the municipal finances and negligence in the keeping of the municipal books and records.

ANNEXATIONS OF TERRITORY.

There were 24 applications made in 1912 by cities, towns, and villages for annexation of additional territory thereto. In some of these cases the applications were found to be in contravention of Section 12 of "The Consolidated Municipal Act," 1903," and were, therefore, necessarily dismissed by the Board.

THE ONTARIO MUNICIPAL SECURITIES ACT, 1908.

There were 81 applications to the Board under the above Act in 1912, involving debentures of a total value of \$1,335,169.16. Of these 72 were to cure irregularities. The amount involved in these 72 applications was \$1,215,016.63.

Acting under the powers conferred by the above Legislation the Board was able to grant relief in 70 out of the 72 applications, thus validating debentures under 70 different by-laws which would otherwise have required special Acts of the Legislature to make the debentures valid and saleable.

The amount of debentures validated by the Board during 1908 was over \$840,000; during 1909, over \$1,326,000; in 1910, over \$718,000; and in 1911, over \$1,353,000.

ASSESSMENT APPEALS.

The Board have heard six assessment appeals from Municipal Courts of Revision during the year 1912, and respectfully suggest that the legislation respecting assessment appeals should be so amended that conflict of jurisdiction between the Board and a District Judge should be avoided. The decision of the Court of Appeal and the stated case affecting this question will be found at page 600, vol. 4, of "The Ontario Weekly Notes."

PUBLIC PARKS.

Under subsection 6 of section 34 of "The Public Parks Act" (2 Geo. V., chap. 46), a Municipal Board of Park Management may, with the approval of The Ontario Railway and Municipal Board, set aside a part of a public park for athletic purposes and other lawful amusements, etc. The Board has found that, in some cases, municipal parks are not large enough to enable a part only to be set aside for athletic purposes, lawful amusements, etc., and that in certain cases it would appear to be a hardship on the municipality not to allow it to set aside the whole of such a park for athletic purposes, etc., and the Board, therefore, respectfully suggests that an amendment to the present legislation, to the above effect, would be beneficial to municipalities, and an encouragement to healthful athletic sports and amusements.

RAILWAY RETURNS.

A summarized tabulation of returns by railways under the Board's jurisdiction, showing the details of their capital, assets, liabilities, operation, etc., will be found in the appendix alphabetically arranged.

ACCIDENTS.

A tabulated summary of accident reports received by the Board during the year 1912, appears in the Appendix, and shows that 25 persons were killed and 537 injured during the year.

In 1908, 26 persons were killed and 391 injured; in 1909, 16 killed and 340 injured; in 1910, 24 were killed and 399 injured; and in 1911, 33 were killed and 541 injured.

SITTINGS OF THE BOARD.

The record of the sessions of the Board and an abstract of the proceedings, together with the Opinions of the Board, appear in the Appendix.

CITY AND SUBURBS PLANS.

Under "The City and Suburbs Plans Act" (Chap. 43 (1912)), the Board considered, during the year, 154 applications for approval of plans. The City of Toronto has now filed a general plan of the suburban districts surrounding the limits of the city, in conformity with which, under the Act, plans of private owners are obliged to be prepared, thus ensuring that the newer portions of the city shall, in future, be laid out in a suitable manner with main highways which will provide suitable and convenient arteries for business and intercommunication. Many of the newer plans submitted for approval have been prepared in collaboration with the municipal officials conversant with these matters, and show a very great improvement in the manner of laying out streets, park reserves, and lots, which the Board feels will greatly enhance the appearance, accessibility and convenience of the newer districts surrounding the city.

The City of Hamilton is also preparing a plan of the suburban districts surrounding its corporate limits, and in view of the Board's experience in connection with applications regarding plans in the neighbourhood of Hamilton, the Board is of the opinion that the preparation of this general plan by the City of Hamilton will secure for the city, for all time, a surrounding of properties so subdivided as to facilitate access and transportation, and at the same time take advantage of and, in fact, enhance the landscape possibilities of the suburban districts surrounding Hamilton, especially those at or near the mountain side.

RAILWAY CONDITIONS IN TORONTO AND VICINITY.

An action having been brought by two ratepayers against the Toronto and York Radial Railway Company to secure better passenger transportation in Toronto and vicinity from the Canadian Pacific Railway tracks northerly on Yonge Street, the Board, after hearing all parties, made a finding that it was entitled to approve of adequate switches to be installed by the Company for the betterment of their passenger service. The Board also found that the Company was compelled by its franchise agreement to carry freight over the above mentioned line. The Board's judgments in both of these respects have been confirmed on appeal by the Court of Appeal for Ontario. (See Procedure File 746 in the Appendix, sub nom. Waddington vs. Toronto and York Radial Railway Co.)

The Board has approved, for the City of Toronto, of its plans for civic car lines on Gerrard Street and Coxwell Avenue from Greenwood Avenue to Main Street, and on St. Clair Avenue from Yonge Street to the Grand Trunk Railway tracks. These civic lines are intended to supply passenger transportation for the daily increasing number of residents in the suburban districts of the City of Toronto. (See Procedure Files 923-4 in the appendix.)

The Application of The Toronto & York Radial Railway Company for the right to install a new terminus at the southerly end of its Yonge Street line, has been granted by the Board. This new terminus has been made necessary by the viaduct and station construction now being effected by the Canadian Pacific and Canadian Northern Railways. (See Procedure File 946 in the Appendix).

The application of the City of Toronto to compel the Toronto Railway Company to establish a special office or store-room where articles left by passengers on its cars can be reclaimed has been dismissed by the Board, there being no legislation compelling a railway company to establish a lost-article office or store-room at any particular location desired by a Municipality, in the absence of a special provision therefor in the franchise agreement between the Municipality and the Railway Company. (See Procedure File 1023 in the Appendix. Sub nom. Toronto vs. Toronto Railway Company).

In connection with the application of the City of Toronto against the Toronto Railway Company for better service up Roncesvalles Avenue and on Dundas Street, and for better transfer arrangements, the Board made Orders as desired by the City, and which have been found to enhance the convenience and comfort of passengers on the Company's cars.

The city's application in regard to rush-hour business and general service was gone into and, on the advice of the Board, the hearing was postponed until the city has referred the whole matter of railway transportation in Toronto to a Board of Experts, whose report is now under consideration by the municipal authorities. The Board was greatly assisted in these matters by the voluntary evidence of many prominent representative citizens, some of whom had taken written memoranda (made on the spot) of particulars of occurrences in connection with rush-hour over-crowding, the running of cars into the car barns and other cognate cases. (See Procedure File 1081 in the Appendix sub nom. Toronto vs. Toronto Railway Company).

The arbitration between the City of Toronto and the Toronto & York Radial Railway Company to fix the price at which that portion of the Company's Mimico Division, from Sunnyside to the Humber, shall be taken over by the City, is now proceeding. This arbitration is being heard by the Board under the provisions of 1 Geo. V. Chap. 119, sec. 6 (2). (See Procedure File 1087 in the Appendix).

Owing to a serious accident at the corner of King and St. Lawrence Streets, alleged to have been due to one of the cars of the Toronto Railway Company descending the grade from the Don bridge at an improper rate of speed and taking the switch instead of remaining on the main line, the Board directed the Company to install a modern safety switch at this point and make stringent running regulations as to cars descending the grade. These directions of the Board have been complied with by the Company, and the Board's engineer is of the opinion that the risk of accident at this point has been obviated as much as is humanly possible. (See Procedure File 1126 in the Appendix).

In connection with the application of the City of Toronto against the Toronto Suburban Railway Company for reconstruction of tracks, &c., at Davenport Road and Bathurst Street, the Board has made an Order ensuring that these improvements shall be effected without any unnecessary delay. (See Procedure File 1182 in the Appendix).

The Board has, on the application of the City of Toronto, made Orders approving of its By-laws No. 5993, providing for a line on Danforth Avenue, from Broadview Avenue to a point 200 feet east of Greenwood Avenue, and No. 5994, providing for a line on Danforth Avenue from a point 200 feet east of Greenwood Avenue to the Eastern City Limits. (See Procedure Files 1199 and 1200 in the Appendix).

In connection with the Toronto Suburban Railway Company's application

for approval of its plans for extensions on Annette Street and Pacific Avenue, the Board has made provision for these extensions to be constructed in conjunction with the City of Toronto's work of paving the city streets, and the Board has also provided that the line shall be so constructed that whenever the traffic shall call for it, a double track system can be installed without undue expense or delay. (See Procedure File 1351-2 in the Appendix).

The Board, on the Application of the City of Toronto, has approved of its by-law No. 6304 to fix the fares on the civic car lines on Gerrard Street and Coxwell Avenue. These fares have been fixed at a very low rate by the City, with the approval of the Board, in view of the fact that residents in this part of the suburbs are compelled to pay an additional fare to the Toronto Railway Company in going to and from the business portion of the city. (See Procedure File 1513 in the Appendix).

TORONTO CIVIC RAILWAY LINES.

The Commissioner of Works for the City of Toronto reports the following expenditures by the city in connection with the Civic Car Lines on St. Clair Avenue, Gerrard Street East and Danforth Avenue:

Gerrard Street Civic Car Lines, Greenwood Avenue to Main Street—1.85 miles.

Construction	\$138,218 15
Overhead and Pole Line	9,578 68
Buildings	2,326 43
*Equipment (Rolling Stock)	40,536 57
	\$190,659 83

St. Clair Avenue Civic Car Lines. Yonge Street to Northern Division G. T. R.—3.2 miles.

Construction	\$117,687 20
Overhead	5,178 18
	\$122,865 38

Danforth Avenue Civic Car Lines, Broadview to Greenwood Avenues—1.4 miles.

Construction	\$98,443 75
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Total—6.45 miles of double track.

*The \$40,536.57 for "equipment and rolling stock" includes four 44-foot, double-end control, P.A.Y.E. centre-aisle cars with seating capacity for 42 people, and equipped with four 80 G. E. motors, each motor having 40 H.P. rating. It also includes one sweeper equipped with two 80 G. E. driving motors and one 80 G. E. motor to operate the brooms. We include in this figure the sundry stock in the barns, which would amount to about \$1,600.00.

The Toronto Hydro-Electric Power Commission supply the line with 550 volt direct current from their transformer station at the corner of Wayland Avenue and Gerrard Street.

THE TORONTO RAILWAY COMPANY.

The track extensions made by this Company during the period December 1st, 1911, to November 30th, 1912, inclusive, are as follows:

Wellington St., from York to Church St.....	.853 miles
Dundas St., from Woodville to Keele St.	.087 "
Lansdowne Avenue, north of Royce Avenue	.011 "
Total	.944 miles

There were constructed and placed in service during the same period 87 new cars—50 single-truck and 37 double-truck cars. (During the calendar year 1912, there were 100 new cars placed in service, the difference between the total of 87 mentioned above and the 100 here referred to having been constructed in the month of December, 1912.)

The expenditure during the twelve months ending November 30th, 1912, for track extension, intersection work and other track improvements, overhead construction, rolling stock, buildings, machinery and other improvements, amount in round figures to about \$900,000.

RAILWAY OUTSIDE OF TORONTO.

The Boards of Trade of Galt, Hespeler, Preston, Berlin and Waterloo, on the 20th January, 1912, filed an application under 1 Geo. V., chap. 52, (Ont.), and 1 Geo. V., chap. 22, sec. 5, (Dom.) for an Order directing the Canadian Pacific Railway Company, the Grand Trunk Railway Company, the Galt, Preston & Hespeler Street Railway Company, and the Preston and Berlin Street Railway to furnish interswitching communications in order that manufacturers might secure connection with the steam railways through the electric railways which were convenient to their premises. This application was heard by a joint Board composed of members of the Dominion Railway Commission and the Ontario Railway and Municipal Board, when the application was granted and Order made for the carrying of same into effect.

BERLIN STREET RAILWAY.

The Berlin Light Commissioners, with the approval of the Board, have installed several "Y's" and switches to add to the efficiency of their system. The Commissioners also constructed 182 feet of additional track at a cost of \$297.80. They also erected an addition to their car barn and machine shop, costing \$2,903.72.

THE BERLIN AND NORTHERN COMPANY.

This Company added 550 feet of track during 1912, at a cost of \$2,340.66.

CORNWALL STREET RAILWAY, LIGHT & POWER CO., LTD.

This Company, during 1912, expended the sum of \$380.49 on new switches for turn-out.

THE GALT, PRESTON & HESPELER RAILWAY CO., LTD.

This Company has, during 1912, extended its tracks 2,700 ft., at a cost of \$15,000, and have also put down 2,000 feet of track for industrial spurs at a cost of \$9,750. On track improvements the Company expended \$8,200, relaying $2\frac{3}{4}$ miles with heavier rails.

In Preston the Company erected a freight office and shed, together with 2,500 feet of track in its yards, costing \$13,000.

In Berlin the Company replaced its Freight Office and shed with a complete new one. It also laid 2,000 additional feet of track in its yards, all at a cost of \$15,500.

Five new shelter stations have been erected by the Company at different points along its line, costing \$950.

The Company has also added to its rolling stock two 55 ft. passenger cars, equipped with automatic air and unit switch control, costing \$30,000.

HAMILTON STREET RAILWAY COMPANY.

This Company has not made any track extensions during 1912, but have rebuilt 5,384 feet of single track with 87 lb. rails and steel ties in concrete, at a cost of \$25,713.40. They also relaid tracks on bridges, &c., at a cost of \$1,278.96.

In connection with overhead work the Company has added feeders and returns, costing \$953.61.

The Company has added to its rolling stock four double truck cars, costing \$22,556.08, and twelve single truck cars costing \$46,531.88.

HAMILTON & DUNDAS STREET RAILWAY.

This railway has not made any track extensions during 1912, but has relaid 2,521 feet of single track with 70 lb. rails, at a cost of \$5,467.39.

HAMILTON, GRIMSBY & BEAMSVILLE ELECTRIC RAILWAY.

This Company has not made any track extensions during 1912, but has added to its overhead work new lines and feeders costing \$5,380.97. The Company has expended \$989.94 in extending sub-station building and has installed additional 200 K.W. motor generator at Grimsby at an expense of \$7,494.41.

The above-mentioned interurban roads in the neighborhood of Hamilton have made the following additions to their rolling stock: Three passenger cars, costing \$30,834.31; 1 motor freight car, \$7,426.94; and 4 flat cars remodelled for use in express service, \$1,265.97.

HUNTSVILLE & LAKE OF BAYS RAILWAY COMPANY.

This Company has expended, during 1912, the sum of \$150.66 for repair of roadbed, track and equipment.

INTERNATIONAL TRANSIT COMPANY, SAULT STE. MARIE.

The above Company, during 1912, has laid 2,175 feet of track on Wellington Street, Steelton, at an expense of \$4,910.50, and has expended on its share of cost of bridge over the Algoma Central Railway tracks, Steelton, \$10,271.25.

The Company has also purchased a new tower wagon, costing \$375.00.

KINGSTON, PORTSMOUTH & CATARAQUI ELECTRIC RAILWAY COMPANY, KINGSTON.

This Company has not made any expenditures in 1912 other than for ordinary repairs.

MOUNT MCKAY AND KAKABEKA FALLS RAILWAY COMPANY, FORT WILLIAM.

The above Company has, during 1912, expended on construction and improvements \$3,168.23, rolling stock and equipment, \$4,437.12, and buildings, etc., \$516.78.

NIAGARA FALLS PARK AND RIVER RAILWAY COMPANY.

This Company has not expended anything during 1912 on track extensions, new rolling stock, buildings, machinery, or improvements of any nature.

PETERBOROUGH STREET RAILWAY.

This Company has extended its tracks, during 1912, about 4,000 feet.

Their expenditure during the year amounted to \$21,517.74, classified as follows: Tracks and crossings, \$17,983.93; rolling stock, \$1,599.48; car shelter and land, \$689.82; bridges and sundries, \$1,244.51.

PORT ARTHUR AND FORT WILLIAM STREET RAILWAY.

This Railway has, during 1912, purchased five new motor cars (four double and one single truck) costing, approximately, \$35,000.

The Company's track extensions and improvements for the year are as follows:

STREET RAILWAY TRACK LAID DURING THE YEAR 1913, PORT ARTHUR, ONT.

Street.	From	To	Distance. Feet.	Length of single track.		Cost.	Remarks.
				feet.	miles.		
Algoma	Queen	Bay	2,025	4,050	0.77	\$ 40,061 ^{c.} 75	Change of location.
Bay	Algoma	Cumberland.	1,515	3,030	0.57	39,653 86	
Algoma	Arthur	Cameron	755	755	0.14	4,920 23	New track.
Fair Grounds, .....	.....	Siding	700	700	0.13	4,806 69	New track.
Cumberland, ..	McVicar	Van Horne ..	1,661	2,122	0.40	17,957 51	Re-laid.
Queen	Algoma	High	1,300	1,300	0.25	1,852 06	Re-laid.
Eleventh	Fort Wm. Rd.	Country Club	8,700	8,700	1.65	.....	New track laid by Country Club.
				20,657	3.91	\$ 90,252 10	

The following additional information has been furnished by the Company:

Track—

Maintenance. Relaying $4\frac{1}{2}$ miles of 45 lb. steel with 80 lb..	\$32,855 00
Re-ballasting 15,000 yds gravel	11,250 00
Renewing 500 ties	300 00

Linework—

Maintenance. Renewing 2 miles of 2/0 trolley wire.....	950 00
New work. Overhead construction on Bay & Algoma Sts. (N.B. Steel, etc., for this given by Mr. Hackney)	2,165 75

Shop Machinery—

Installing wheel grinder	745 00
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SARNIA STREET RAILWAY COMPANY, LIMITED.

During 1912 this Company has expended \$10,000 on a new car barn and \$10,000 for new machinery.

SANDWICH WINDSOR & AMHERSTBURG RAILWAY.

This Company reports the following expenditures for 1912 for additions and betterments:

Tracks, 1.648 miles	\$27,012 56
Electric Line	658 10
Cars	16,928 98
Power House	190 10
Real Estate	1,200 00
Light Plant	16,932 46
Total	\$62,922 20

THE WINDSOR AND TECUMSEH ELECTRIC RAILWAY COMPANY.

Track Paving	\$6,248 88
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TORONTO SUBURBAN RAILWAY COMPANY.

This Company reports the following expenditures for 1912 on betterments and improvements:

Track improvements, including general repairs and new track	\$10,481 57
Overhead structures	1,517 74
Rolling stock	882 49
Buildings, improvements to	541 61
Total	\$13,483 41

The Company has filed plans &c., of proposed extensions of its railway as follows: From Weston to Woodbridge, from Lambton to Georgetown and Guelph, from Lambton to Summerville, and of the bridges and crossings on these lines. The estimated expenditure during 1912 on these extensions is \$350,000.

TELEPHONE SYSTEMS.

During the year 1912 the Board has received numerous applications and complaints regarding matters which come within the provisions of "The Ontario Telephone Act." These may be summarized as follows:

(a) Applications for physical connection and inter-communication between adjoining telephone systems, under section 33 of the Act.

(b) Petitions for telephone service, under section 36 of the Act.

(c) Applications for the approval of increased tariff charges, under section 31 of the Act.

(d) Applications for the approval of plans and specifications of systems to be established under Part II of the Act.

(e) Applications for advisory and supervisory assistance, under section 26 (3) of the Act.

The continued policy of the Board in endeavoring to secure an amicable settlement between the applicant and respondent, wherever desirable and practical, with the assistance of the Board's expert, has in the majority of these cases proved successful.

In addition to the applications and complaints referred to, a vast amount of correspondence relating to telephone matters has been handled by the Board, through the medium of which much information has been given to municipalities, companies and other persons interested, and many difficulties that might otherwise have necessitated a hearing before the Board have been satisfactorily adjusted.

The experience of the Board in its administration of "The Ontario Telephone Act" has indicated the desirability of certain amendments for the purpose of more clearly defining the authority of the Board in regard to some of its provisions, and for the more effective application of the machinery provided in the Act for the securing of an efficient telephone service in the Province. Among the suggested amendments the Board submits the following as being desirable:

(1) A provision empowering the Board to prescribe a uniform system of accounting for telephone systems.

(2) A provision to prevent the parallelling of telephone lines by municipalities, wherever it is possible to avoid duplication by the purchase of existing lines at a just and equitable price.

(3) A provision empowering the Board to require the furnishing of a reasonably efficient service and to make such orders in regard thereto as may, upon complaint being made and after due investigation, be found to be necessary.

(4) The amending of section 28 of the Act, so as to render more effective the carrying out of any order of the Board made under sections 33 and 36 of the Act.

The number of telephone systems, the tariff of which have been reported to the Board is now 354. There are a large number of systems, the owners of which continue to neglect the filing of their tariff charges, in apparent ignorance of the fact that no tolls can be legally collected until the same have been filed with and approved by the Board. Acting in accordance with the provisions of section 27 of "The Ontario Telephone Act" the Board has prepared and forwarded to the owner of every telephone system within the jurisdiction of Ontario, blank forms upon which to furnish particulars of the toll charges and other information respecting the cost, etc., of the system. Complete returns have not been received from all the system communicated with, but a summary of the reports to hand is included in this report.

PUBLIC UTILITIES.

We have the honor to submit reports for the year ending 30 June, 1912, upon the Electric Railways and Electric Street Railways operating in the Province of Ontario.

These reports include partial data relating to the Ottawa Street Railway and the Hamilton Radial Railway. These railways operating under Dominion charters have not reported to the Board, and the data given is derived from the report of Comptroller of Dominion Railway Statistics.

Forms for returns were sent out to all the municipal corporations operating public utilities in the Province. In the majority of cases the forms sent out have been completed and returned to the Board. The returns have been tabulated and appear in the appendix.

In the report submitted by the Board for the year 1907, attention was directed to the difficulty experienced in obtaining from some municipalities adequate information relating to public utilities operated by them. In some cases municipal officers frankly confess their inability to supply the information required by the Board, advancing the plea that the systems of accounting and of record-keeping in operation preclude the possibility of furnishing much essential data sought by the Board.

In some cases municipal clerks disclaim any responsibility in furnishing information to the Board, asking the Board to designate the Statute under which the Board puts upon them the additional work incident to preparing reports of the operation of public utilities. The Board therefore again express the opinion that, in the public interest, a uniform up-to-date system of accounting and record-keeping should be installed in every municipality operating public utilities, so that every municipality will have at hand all the material necessary to furnish to the Board from year to year the vital data relating to the receipts and outlays in the operation of public utilities, and all statistics necessary to an intelligent analysis and study of the working of such utilities, in order that comparisons may be made with the results attained by other municipalities.

The Board renew the recommendation that it be given authority to install a uniform system of accounting in all municipalities operating public utilities, so that they may be able effectively to carry out the provisions of Section 57 of the Ontario Railway and Municipal Board Act.

Returns from municipalities operating gas, electric light and waterworks plants, telephones and railways, will be found in the Appendix; also returns by Railway Companies under the jurisdiction of this Province. These returns have been published from year to year by the Board, and are valuable as statistical data for use by municipalities and companies and persons interested in their operation. The demand for copies of the Board's reports for reference to these summaries and statistics has been large and is increasing from year to year.

Dated the 12th day of April, 1913.

D. M. McINTYRE,
Chairman.

A. B. INGRAM,
Vice-Chairman.

H. N. KITTSO, N.
Commissioner.

PROCEDURE FILE 613.

Port Arthur

vs.

Fort William.

(Re Street Railway Accounts).

June 26. Application for hearing at Port Arthur, Sept. 11th. 2.30 p.m.

Sept. 11. Hearing, judgment reserved.

Sept. 28. Judgment delivered.

DETERMINATION OF THE BOARD.

This is an application made by Port Arthur to open up and revise the accounts rendered by Fort William for expenditures in connection with electric railway matters, which have already been settled, and for the adjustment of the charges for the siding into the car barns, the cost of the protection of the Frederica Street crossing and for the extension to the Mission River.

The question in reference to the opening of the settled accounts lies within a narrow compass. The function of the Board to determine any matters of difference in connection with the Street Railway between the cities of Fort William and Port Arthur, arises under Statutes of Ontario, 1909, Cap. 118 of 9 Edw. VII, Section 6, being the Act respecting the City of Port Arthur. Section 6 reads, "in the event of any difference arising as to the construction of the agreement set out as Schedule 'B' to the Act passed in the 8th year of His Majesty's reign, Chaptered 80, or of the agreement incorporated in the award of The Ontario Railway and Municipal Board, dated the 4th day of July, 1908, or as to any matter or thing to be done or performed under their terms, such difference shall be determined if either of the said Corporations so require, by The Ontario Railway and Municipal Board, and the decision of such Board shall be final and binding upon all parties."

Messrs. Herrigan and Dawson were appointed by the Cities of Port Arthur and Fort William respectively to audit and settle the accounts between the Cities in connection with the street railway matters.

On the 19th of November, 1910, Messrs Herrigan and Dawson wrote to the Board as follows: "If you will kindly state the width of the paving and the depth and width of the sub base, which Port Arthur should pay interest and sinking charges upon, the Councils of the two cities have authorized us to fix the total amount after we have received your interpretation in regard to these items." That was the only question that was open and unsettled.

The Board referred the matter to their engineer, who, on the 1st of December, 1910, made his report. The Board adopted their Engineer's Report and transmitted it to the Auditors as the determination of the Board. The following is the report of the Board's Engineer: "I am of the opinion that they are entitled to pay for all fills from the ground level as it then existed before any fills were made up to the present level of their rails for a width which I think might be reasonably called 20 feet on all tangents, and that all the filling beyond that width necessary to bring the street to that new level should not be charged to the railway. On all curves where the devil strip has to be made necessarily wider than 6 feet for the clearance of the cars I would suggest that the railway should pay for all material

taken out, filled in, or used for ballasting, surfacing, concreting and paving for a width of the gauges of the two tracks, viz., 4 ft. 8½ in. each, plus the width of the devil strip, and in addition for a distance of 2 ft. 3½ in. from the gauge line of the outside rail of each track. Where the then existing street levels require the railway company to cut a trench in order to lay their tracks, my opinion is that the railway company should pay for the width of 20 feet on the tangent, and for the depth of 1 ft. 9 in. average shown on the Engineer's plan, and for all excavation, stone filling, concreting, and paving, included in that width and depth."

After receipt of the ruling of the Board, the Auditors on the 30th December, 1910, reported as follows: "We, the undersigned auditors appointed by the Councils of the Cities of Port Arthur and Fort William respectively, to audit and adjust the account of the City of Fort William against the joint Street Railway Board for interest and sinking fund on capital expenditure made by Fort William during the years 1908 and 1909, and to settle the principle upon which payments of interest and sinking fund on further capital expenditures by the City of Fort William shall be based during the period of five years as referred to in the award of The Ontario Railway and Municipal Board, dated July 4th, 1908; hereby report that we, after having referred certain stated points of difference to the Ontario Railway and Municipal Board for their ruling thereon, have now agreed upon the basis upon which interest and sinking fund shall be computed and charged by the City of Fort William against the joint Railway Board."

This report was submitted to the Councils of both cities and by them adopted. It was adopted by Port Arthur on the 30th December, 1910. The action of the Councils of the two cities in adopting the report of the auditors not only settled the accounts up to that date, but fixed the principle upon which payments of interest and sinking fund on capital expenditure by the City of Fort William should be based during a period of five years.

The Board have performed the function which 9 Edw. VII authorizes it to perform. To open up the accounts that the Auditors have settled and the Councils of both cities have adopted is beyond our jurisdiction. Fort William has passed its debenture by-laws on the faith of the settlement of the accounts made by the Auditors. The by-laws have been validated by the Act of 1910, 1 Geo. V. Cap. 88. The whole business has been closed. This part of the application will have to be dismissed.

In reference to the \$90 for the siding into the car barns, if Port Arthur has been using this siding they should be chargeable with the \$90, if they have not been using it, they are not liable.

In reference to the expenditures for protecting street crossings, Port Arthur's liability must be limited to \$350 per annum. In reference to the Mission extension, it was agreed between counsel that Port Arthur should pay for three miles only.

The Board makes no order for costs except that Port Arthur and Fort William shall each pay \$10 for stamps.

JAMES LEITCH,
Chairman.

PROCEDURE FILE 746.

Waddington et al.

vs.

Toronto & York Radial Railway.

Jan. 5. Reasons of Appeal of Town of North Toronto filed.

PROCEDURE FILE 873.

Sandwich, Windsor & Amherstburg Ry.

vs.

City of Windsor

(For construction of Tax Exemption Agreement).

Feb. 10. This judgment was varied by Court of Appeal by striking out Business Assessment (sec. 226 of Assessment Act, which was not cited on argument before this Board.) Sec. 3, O. W. N.

PROCEDURE FILE 907.

Application by Toronto Railway Company for approval of Safety Devices for its cars.

Feb. 22. Board appoints Friday, March 1st, 1912, 2.30 p.m., at its Chambers for hearing, and directs service of notice of City of Toronto.

Feb. 29. Hearing adjourned by request of Counsel to 12th March, 1912, 2.30 p.m.

Mar. 12. Hearing. Order made approving Engineer's report herein.

Upon the application of the said applicant for approval of safety devices for use on its cars, upon reading the reports of the Board's Engineer as to the supervision by him of the tests of safety devices for use on the cars of the said Company and upon hearing Counsel for both parties,

The Board Orders that the safety devices mentioned in the report of the Board's Engineer, bearing date the twentieth day of December, A.D., 1911, be and the same are hereby approved, and that the safety devices be installed without delay for use on the cars of the said Company as mentioned in the said report.

And the Board makes no order as to costs, except that the Applicant shall pay \$10.00 for law stamps on this Order.

(Sgd.) JAMES LEITCH,

(Seal.)

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 923. (P. F. P. 72).

Application by the City of Toronto for approval of plans for Civic Car Lines on Gerrard Street & Coxwell Ave., from Greenwood Ave. to Main Street.

Feb. 9. Plans &c., certified and approved.

May 29. Order issued approving construction by-law No. 5992.

PROCEDURE FILE 924. (P. F. P. 73).

Application by the City of Toronto for approval of Civic Street Railway Line on St. Clair Ave., from Yonge Street to the Grand Trunk Railway tracks.

Feb. 9. Plans, &c., certified and approved.

May 29. Order issued approving construction by-law No. 5992.

Upon the application of the above-named Corporation, and upon reading the Notice of Application filed, a statement of the estimated cost of construction and equipment of the street railway lines, a certified copy of the said by-law, and the other material filed,

The Board orders that the said by-law No. 5992, intituled "No 5992. A by-law to authorize the construction of street car lines on St. Clair Avenue, from Yonge Street to the right of way of the Grand Trunk Railway Company, Northern Division, and on Gerrard Street and Coxwell Avenue to Main Street," be and the same is hereby approved.

(Sgd.) JAMES LEITCH,

(Seal.)

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 946. (P. F. P. 76).

Toronto and York Radial Ry. Coy.

Mar. 8. Engineer's report on Deviation Westerly from Yonge Street at Farnham Ave. (eliminating level crossings), with blue prints filed.

Mar. 9. Report and blue prints returned to Engineer at his request, for alteration and amendment.

Mar. 12. Report and blue prints again filed by Engineer and copy dispatched to Solicitors for City Railway Company.

May 22. Hearing continued pursuant to Appointment. Railway Company directed to file revised plans, &c.

May 30. Revised plans &c., filed by Toronto & York Radial Railway Company.

May 31. Hearing continued, 2.30-4 p.m., and adjourned to 11th prox. 2.30 p. m. for consideration by all parties of new plans &c., filed by Railway Company.

June 11. Hearing continued and concluded 2.30-5 p.m. Judgment reserved.

June 17. Judgment delivered. allowing deviation.

June 27. Order settled and issued.

Sept. 4. Order made rule of Court.

Sept. 10. Notice of application for leave to appeal filed by City.

Sept. 27. Notice of setting down appeal received.

Dec. 16. Hearing of Railway's application for approval of plan showing changes in details of grade. Board directs inspection by its Engineer and if he approve work as being authorized under plan heretofore approved by Board herein, then Railway Company may proceed with work at their own risk of result of appeal by City of Toronto herein now pending.

DETERMINATION OF THE BOARD.

The Board decided at the sitting held on the 16th of October last, that the Company had the right to deviate their line and leave Yonge Street and get on their own right of way. The Board's reasons for this finding appears in the written opinion of the Board, dated the 25th of October last. There has been no appeal to the Court of Appeal from this decision. The Board were of opinion that the deviation should be on terms to cross streets either by tunnel or viaduct or by both, if at all possible and if within the financial ability of the Company.

We directed our Engineer to prepare plans of overhead crossings and give us an estimate of the cost. He reported that the overhead crossings would cost over half a million. The city declined to contribute anything towards the scheme of a grade separation. It was clear to the Board that it was a matter of utter impossibility for this small road, the gross earnings of which only amounted to about \$200,000 and its net earnings to about \$29,000 per annum to put half a million into the work of grade separation. Therefore the Board regrets that their desire for grade separation could not be carried out.

On the 22nd of May we directed the Company to file a revised plan showing the crossing of the streets on the level, with a statement as to how they proposed to protect the public at these crossings, and adjourned further hearing until the 31st. The matter was again adjourned at the request of the city to the 11th of June to give the city a further opportunity to file plans with the Board.

The City have filed plans showing how the Company could leave Yonge Street about 10 feet north of the retaining wall of the C. P. R. and C. N. R. subways and run direct into their proposed terminal.

Since hearing the evidence of all parties that was adduced on the 11th inst., the Board have carefully considered with their Engineer, the Company's and the City's plans. The Board have concluded to approve the Company's plan and book of reference. The City's plans are designed for the Company continuing to run on Yonge Street, south of Farnham Avenue, and not on their own right of way, and they do not lessen the present dangerous condition of all the company's traffic crossing the sidewalk at Yonge Street. In fact, the condition is rendered more dangerous by reason of the subway. If the City's plans were adopted all the Company's traffic would have to go over one track to their terminal. The City's loop plan requires a reversed movement and their stub plan requires a reversed movement both for incoming and outgoing cars. On our Engineer's recommendation we reject the City's plans because we are of opinion that both from an engineering and operating standpoint they will create a dangerous condition and call for construction unsuitable to the Company's traffic.

It was urged on behalf of the City that the Company, by getting on their own right of way, were endeavoring to turn a terminable franchise into a perpetual right. We cannot see that such a result will follow. In any event such a suspicion would be no reason why this Board, by the indirect method of imposing impossible or unreasonable condition, should prevent the Company from exercising their clear statutory right to deviate to their private right of way.

For the protection of the public the Company will require to run their cars each way from Farnham to their terminal not faster than six miles an hour. They will require to stop before crossing some of the streets. We will settle definitely,

with the assistance of our Engineer, the whole question of protection before the Company commences operation on the deviated right of way. We reserve further directions.

The Boards makes no Order for costs except that the Company will pay \$60 in stamps for the formal Order, together with our Engineer's fees.

(Signed) JAMES LEITCH,
Chairman.

PROCEDURE FILE 958.

Application by the City of London, under 6 Edw. VII., c. 34, sec. 21, for approval of Waterworks Extension By-law (\$57,000).

Jan. 13. Further material having been filed, appointment issued for hearing at Board's Chambers on Friday, Jan. 19th, 1912, at 2.30 p.m.

Jan. 18. Opposition to application discontinued by ratepayers opposing.

Jan. 19. Order.

Upon the application of the above named Corporation, and upon reading the Statutory Declarations of James Stevenson Bell, Treasurer, Samuel Baker, Clerk, and Hugh Julius Claubitz, Civil Engineer, of the said City, the Petition of the Municipal Council, the certified copy of the said By-law, and the other material filed,

The Board orders that the said By-law, intituled, "By-law No. , to raise the sum of \$57,000 to extend the London waterworks," be and the same is hereby approved.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 959.

Application by the City of London, under 6 Edw. VII., c. 34, sec. 21, for approval of Electric Light and Power Extension By-law (\$90,000).

Jan. 13. Further material having been filed, appointment issued for hearing at Board's Chambers on Friday, Jan. 19th, 1912, at 2.30 p.m.

Jan. 18. Opposition to application discontinued by ratepayers opposing.

Jan. 19. Order.

Upon the application of the above named Corporation, and upon reading the Statutory Declarations of James Stevenson Bell, Treasurer; Samuel Baker, Clerk; and Hugh Julius Claubitz, Civil Engineer, of the said City, the Petition of the Municipal Council, the certified copy of the said By-law, and the other material filed,

The Board orders that the said By-law, intituled "By-law No. . To raise the sum of \$90,000 for electric light and power works," be and the same is hereby approved.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 969.

Between—

Ottawa Valley Rural Telephone Company, of Kars,

vs.

Metcalfe Rural Telephone Company, of Metcalfe, and the Township of Osgoode.

(For intercommunication (under 10th Edw. VII., c. 84, sec. 8 and 9) and right to erect pole lines (11 Edw. VII., c. 55, sec. 4 (f)).)

March 1. On complaint of 29 resident land owners of the Township of Osgoode, Order issued that applicants furnish telephone service to complainants and erect necessary pole lines.

Oct. 5. Complaint received that Municipal Council of Osgoode, by resolution, decline to give the applicants permission to erect poles and wires in Township of Osgoode. Board instructs its expert to make investigation and direct the applicants to erect the necessary poles and wires to furnish service to the 29 residents in the Township of Osgoode.

Settlement arrived at by Respondent agreeing to sell that portion of its system west of Osgoode station and applicant agreeing to build and operate in that part of the township an interchange service.

Whereas in an Order bearing date the Thirteenth day of June, A.D., 1911, the Board ordered and directed that the territory in the Township of Osgoode, located west of the Canadian Pacific Railway, should be thoroughly canvassed for subscribers by the respondents within two months from the aforesaid date, and that all such contracts for such service secured within the said period should be completed by the Fifteenth day of November, A.D., 1911.

And whereas the respondents have not carried out the Order of the Board in regard to making a thorough canvass of the aforesaid territory within the period ordered by the Board.

And whereas the Board is in receipt of a petition signed by twenty-nine resident land owners in that part of the Township of Osgoode, located west of the C. P. R., stating that they have no telephone service, and further that they are desirous of connection with the system of the applicants.

The Board now orders that the applicants furnish telephone service to the aforesaid petitioners, and to such other persons residing in the Township of Osgoode west of the Canadian Pacific Railway who may require such service to be furnished hereafter.

And the Board further orders in accordance with the provisions of sub-section "F" of section 4 of "The Ontario Telephone Act, 1910," that the applicants shall erect such poles and wires along the roads and highways in the Township of Osgoode, west of the Canadian Pacific Railway, as may be necessary to furnish the residents with telephone service upon such conditions as may be agreed upon between the Council of the Township of Osgoode and the applicants, or upon such terms and conditions as may hereafter be prescribed by the Board.

The Board makes no Order for costs, except that the applicants shall pay \$5.00 for the stamp required for this Order.

(Seal.)

(Signed) JAMES LEITCH,

Chairman, The Ontario Railway and Municipal Board.

THE ONTARIO RAILWAY AND MUNICIPAL BOARD.

Monday, the Seventh day of October, A.D., 1912.

Before:

JAMES LEITCH, Esq., K.C.,
Chairman.A. B. INGRAM, Esq.,
Vice-Chairman,
andH. N. KITTSOON, Esq.,
Commissioner.The Ottawa Valley Rural Telephone Company, Limited,
Applicants.

and

The Metcalfe Rural Telephone Company, Limited,
Respondents.

Upon the application of the applicants, and upon reading the letters of the Reeve and the Clerk of the Municipal Corporation of the Township of Osgoode, and the letters of W. E. Stratton, Managing Director of the Ottawa Valley Rural Telephone Company, and the Board's Order of the First Day of March, A.D., 1912, ordering the applicants, under the provisions of "The Ontario Telephone Act," to erect such poles and wires along the roads and highways in the Township of Osgoode, west of the Canadian Pacific Railway, as it may be necessary to furnish the residents with telephone service upon such terms and conditions as may be agreed upon between the Council of the Township of Osgoode and the applicants, or upon such terms and conditions as may be prescribed by the Board,

And it appearing to the Board that the applicants, The Ottawa Valley Rural Telephone Company, and the Municipal Corporation of the Township of Osgoode, have been unable to agree upon the terms and conditions under which the said poles and wires should be erected by the applicants, The Ottawa Valley Rural Telephone Company, Limited, upon the roads and highways in the Township of Osgoode.

The Board hereby orders Francis Dagger, Esq., the expert of the Board, to proceed to the Township of Osgoode, and on behalf of the Board to locate the position of the poles and wires to be erected by The Ottawa Valley Rural Telephone Company, Limited, in the said roads and highways of the Township of Osgoode, and to prescribe such specifications as may be necessary to safeguard the travelling public, and report to the Board.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 974.

Application by the Municipal Corporation of the Village of Blyth, under 10 Edw. VII., chap. 84, for approval of Agreement with the Municipal Corporation of the Township of McKillop, of which execution was refused by the Township.
(Blyth vs. McKillop.)

March. 7. Notice received that Board's judgment reversed by Court of Appeal.

PROCEDURE FILE 990.

The Ontario and Minnesota Power Co., Ltd.,

vs.

Fort Frances.

(Assessment Appeal) (\$600,000).

Dec. 6th. Time for Execution of Commission enlarged to 17th January, 1913.

PROCEDURE FILE 992.

H. Williams,

vs.

Fort Frances.

(Assessment Appeal \$40,000.)

Jan. 13. Commission returned (with evidence, exhibits, etc.).

April 30. Hearing pursuant to appointment and adjournment—no one appearing for Fort Frances. Hearing adjourned till Tuesday, 7th prox., at 3 p.m.

May 7. Hearing. Judgment reserved.

May 13. Judgment delivered in favor of appellant.

May 17. Order issued in terms of draft approved by counsel.

Opinion of the Board.

This is an appeal from the Court of Revision of the Town of Fort Frances, on the ground that the Court of Revision was without jurisdiction, that William Phair, the appellant to the Court of Revision, was a member of the said Court, and that he voted to increase the appellant's assessment, and further, on the ground that the assessment made by the Court of Revision was excessive and improper.

The appellant is assessed for an amount aggregating over \$40,000 on the assessment roll. The dispute is only as to the assessment on Lots I, J, K, and L on the roll. The property was assessed in the name of the appellant's wife, but the appellant acted as her agent in all the proceedings. The assessment roll was returned on the 2nd day of May, 1911. No notice of appeal to the Court of Revision was given or filed until the 23rd day of May. The time for appealing to the Court of Revision had not been extended. The appeal was seven days too late. William Phair's appeal against the appellant's assessment was the only appeal to the Court of Revision. Mr. Phair, Mr. Noden, and Mr. Fraleigh composed the Court of Revision. The Court of Revision was closed on the 30th day of June, 1911. The appellant gave notice of appeal against the decision of the Court of Revision on the 3rd of July, and on the 4th of July the Town Clerk transmitted notice to this Board and the notice was received on the 7th.

Some days after the appeal to this Board, Mr. Noden, a member of the Court of Revision, appealed against the decision of that Court to the District Judge, who, notwithstanding that an appeal had been made to this Board, proceeded with the trial, and again the appellant's assessment was increased. The District Judge

was notified of the appeal to the Board, and his jurisdiction was objected to, but, in defiance of all objections, he proceeded.

Where there is an appeal from the Court of Revision to a Judge, and the person desiring to appeal has been assessed to an amount aggregating \$40,000, he shall have the right to appeal to this Board. This is a statutory right which cannot be taken away by an appeal to a judge. It is the person desiring to appeal who has the right to elect as to what tribunal shall hear his appeal, the Board or a judge. The appellant certainly had the right to appeal, and did duly appeal, to this Board, and the Judge of the District Court consequently had no jurisdiction in the matter.

It is clear to this Board, from the evidence, that the original assessment was fair and reasonable. We therefore allow this appeal and order that the original assessment by the assessor be restored. We order and direct the assessor, or whoever has the custody of the assessment roll, to correct it by restoring the assessor's original assessment. The respondents, the Corporation of Fort Frances, will have to pay the fees of Mr. W. H. Elliott, the Commissioner, who executed the Commission and took the evidence, which we fix at \$15, and also his disbursements, \$1.40, and the fee of Mary Anderson, the stenographer, who took and transcribed the evidence, which we fix at \$14.50 and \$10 for a stamp on the formal Order, otherwise we make no Order as to costs, so that each party will pay his own costs.

(Signed) JAMES LEITCH,
Chairman of the Ontario Railway and Municipal Board.

1. Upon motion made this day unto this Board by counsel on behalf of the appellant representing A. S. Williams in the presence of counsel for the respondent by way of appeal from the order of the Court of Revision of the Town of Fort Frances holden at the Town of Fort Frances on the 5th and 12th days of June, 1911, respectively, whereby the assessment of the lands and premises of A. S. Williams, being Lots "I," "J," "K," and "L," was increased from the amounts as fixed by the Assessor of the Town of Fort Frances as entered in the Assessment Roll for the year 1911, and upon hearing read the Notice of Appeal, the evidence taken on commission, the minutes of the Court of Revision for hearing appeals from the Assessment Roll for the Town of Fort Frances for the year 1911, the judgment of His Honour C. Russell Fitch, District Judge of the Judicial District of Rainy River, dated the 31st of July, 1911, the notes of said Judge taken on such hearing and the other proceedings and exhibits had in the matter and upon hearing counsel aforesaid.

2. This Board doth order and adjudge that the order of the Court of Revision whereby they increased the assessment of the lands and premises aforesaid be and the same is hereby set aside.

3. This Board doth further order that the assessment aforesaid made by the Assessor of the Town of Fort Frances for the lands and premises described as Lots "I," "J," "K," and "L," in the said Corporation of the Town of Fort Frances in the name of A. S. Williams be and the same is hereby restored.

4. It is further ordered that the said Assessor or whoever has the custody of the assessment roll do correct it by restoring the said assessor's original assessment for the said lands and premises for the year 1911, as aforesaid.

5. And it is further ordered that the respondent do forthwith pay to the appellant the fees of the Commissioner who executed the commission issued by

this Board, which are fixed at the sum of \$16.40, and the fees of the stenographer who took and transcribed the evidence which are fixed at \$14.50, and to pay to the appellant \$10 for the stamp on this order and save as aforesaid this Board doth not see fit to make any further order as to the costs of this appeal.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1003. (P.F.P. 85.)

Application by the Public Works Department of Ontario, for approval of stress sheet of Highway and Railway Bridge over the Kaministiquia River in Township Paipoonge, near Slate River.

Jan. 25. Detailed plans filed for approval, referred to Engineer.

Feb. 8. Engineer's report approving received. Plans, etc., certified and approved.

TORONTO, February 8th, 1912

The Chairman of The Ontario Railway and Municipal Board, Toronto.

SIR,—I have examined the sections of the members for the combined electric railway and highway bridge over the Kaministiquia River at Fort William, shown on the working drawings submitted to your Board by the Campbellford Bridge Co., on the 29th ult. I find they agree with the revised stress sheet approved by you on Oct. 9th last, which was made to conform to my report to your Board on July 25th last, but for two 50-ton electric locomotives. It was necessary, however, for me to check over the new stresses to see if they agreed with the loading required, and, having done so, I have to report that my calculations agree very closely with those of the Bridge Company. I may say I did not go further into the details of the shop drawings, as I understand the Deputy Minister of Public Works is satisfied with them.

As the revised stress sheet is correct, and agrees with the calculations now made by me, I therefore advise your Board to approve the plans on the understanding that the above live loading is not exceeded.

Yours truly,

(Signed) H. W. MIDDLEMIST.

PROCEDURE FILE 1007.

Township of Sandwich East

vs.

Sandwich, Windsor, and Amherstburg Railway.
(For Extension to Walkerville and Belt Line.)

June 26. Appointment for hearing Sept. 19th, 2.30 p.m., Board's Chambers.

Sept. 16. Affidavit in support of applicant's motion for further examination and production filed—exhibits thereto not filed.

Sept. 19. Hearing, applicant's motion for further discovery and production enlarged to 27th inst., 2.30 p.m.

Sept. 27. Respondent's affidavit on production (sworn 25th Sept., 1912) filed. Hearing of applicant's motion adjourned to 3rd October, at 2.30 p.m.

Oct. 3. Hearing of applicant's motion granted, question of costs to be reserved, pending final disposition of application.

Oct. 8. Order for further production and discovery settled and issued.

Upon the application of the applicant, the Township of Sandwich East, and upon reading the affidavit of F. D. Davis filed and the exhibits referred to, and having heard counsel for the applicant and the respondents,

1. The Board doth order that James Anderson, Manager of the Sandwich, Windsor, and Amherstburg Railway, and the auditor of the said railway, and Albert E. Peters, Secretary of the Railway Company, do attend for examination before Francis Cleary, Esquire, at his Chambers in the City Hall, in the City of Windsor, at such time and place as he shall appoint for examination for discovery as to matters in question on this application.

2. And this Board doth further order that the said parties do inform themselves before such examination as to the matters in question in this application so as to afford the information required upon such examination.

3. And this Board doth further Order that the respondents and each of them do forthwith file an affidavit on production pursuant to the order made herein dated September 18th, 1911, and do in addition thereto produce upon said examination as heretofore directed all such books of account, accounts and documents as may be notified to them as being required or as may be directed by the Special Examiner upon and during the course of the examination.

4. And this Board doth further Order that the costs of this application be reserved to be dealt with hereafter.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1022. (P.F.P. 88.)

The Municipal Corporation of the Township of Middleton

vs.

The Municipal Corporation of the Township of Dereham.
(Deviation County Line between Norfolk and Oxford Counties.)

Jan. 13. Appointment issued to settle order on 30th inst., at 2.30 p.m., at Board's Chambers.

Jan. 30. Minutes of judgment and order settled.

This application coming for hearing before the Board on Tuesday the Twenty-first day of November, A.D., 1911, pursuant to appointment in the presence of counsel for all parties, and the road in question having been viewed by a quorum of the Board, and upon consideration of the evidence adduced by the parties and exhibits filed and the admissions made, and upon hearing what was alleged by counsel aforesaid and judgment having been reserved until this day.

1. The Board in pursuance of "The Consolidated Municipal Act," 1903, as amended by 7 Edward VII., Ontario, chapter xl., section 26, orders and declares that the road referred to in the paragraph 4a of the Application, as follows:—

Commencing where a stake has been planted by W. G. Wonham, Esquire, Provincial Land Surveyor, in the centre of the allowance for road between the said Counties of Oxford and Norfolk, which said stake is sixty links westerly from where the westerly limit of Lot number six, in the fifth concession of the Township of Middleton, produced northerly, would intersect the centre of the said road allowance; thence south thirty-one degrees thirty minutes, west two chains eighty-two links, to a stake set; thence south four degrees ten minutes west, six chains seventy-five links more or less, to a stake set, thence south fifty-two degrees twenty-five minutes west, eighty-five chains ninety links, more or less, to the centre of the allowance for road between the Townships of Middleton and Bayham, thence following the centre of the road allowance north thirty degrees west, fifty-one chains fifty-six links more or less to the centre of the allowance for road between the Counties of Oxford and Norfolk, the line above described to be the centre of a road of one chain in width, and that part of the deviated line as described in By-law No. 130 of County of Oxford to the west boundary of the Town of Tilsonburg, together with such deviations as may have been made for purposes of construction of the same, is now and has been a deviation of the County boundary line between the Township of Middleton in the County of Norfolk and the Township of Dereham in the County of Oxford in lieu of the original County boundary line which was never opened owing to the difficulties of construction.

2. This Court doth further order that the said Townships of Middleton and Dereham shall keep up and maintain said deviated road in equal proportions.

3. It is further ordered that each of said parties shall pay its own costs of this application and that each shall pay the sum of \$10.00 for stamp on this Order.

(Sgd.) JAMES LEITCH,

(Seal.)

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1023.

Between :—

The City of Toronto,

Applicant.

—and—

The Toronto Railway Company,

Respondents.

(Lost Articles.)

June 25. Case mentioned by Counsel. Hearing fixed for Sept. 20th, 1912, at Board's Chambers.

Sept. 20. Hearing adjourned to 24th inst., at 2.30 p.m.

Sept. 24. Hearing. Judgment reserved.

Sept. 28. Judgment delivered.

THE ONTARIO RAILWAY AND MUNICIPAL BOARD.

Before:—

James Leitch, Esq., K.C.,
Chairman,
A. B. Ingram, Esq.,
Vice-Chairman, and
H. N. Kittson, Esq.,
Commissioner.

Between:—

The Corporation of the City of Toronto,

Applicants,

—and—

The Toronto Railway Company,

Respondents.

LOST ARTICLES CASE.

OPINION OF THE BOARD.

This is an application made by the City to the Board to fix and prescribe the method of dealing with articles, which may be left upon the Company's cars by the travelling public. The Company, some years ago, when articles were left on the cars, adopted the practice of sending them to the Company's Head Office at the corner of King and Church streets. The number of articles which the Company were called upon to take care of, became so large, and so much time was taken up by claimants making enquiries at the office, identifying their property, and re-suming possession of it that the conductors returning their fare boxes were very much inconvenienced and delayed. The service was so affected that the Company found it expedient some time ago to direct each conductor to take the articles in the first place to the car barns at the end of his run, where they were left, along with a memorandum giving particulars of where they were found. They were then gathered together and sent by car to the barn on Lansdowne Avenue.

The Company there provided a room for storing them and a clerk to examine, label and put them in racks, so that they could be identified and returned to the owners when they applied for them. A telephone is maintained for the convenience of persons making enquiries. The City says that this practice, in dealing with lost articles, is unjust, unreasonable and improper, and without suggesting any other method in their application, ask that this Board should fix and prescribe the way in which these articles should be dealt with by the Company.

It was suggested, at the hearing by the City, that the Company should provide a building in the down-town district, in the neighborhood of the loop on Scott Street and fit it up for the reception of lost articles and provide the clerical and other assistance necessary to handle them. It appears in the evidence that in the last year over 13,000 lost articles have been taken care of by the Company. Of these about 7,000 were claimed and restored to the owners.

The franchise agreement between the City and the Company makes no provision for the care and disposal of lost articles. The only provision in reference to property left on the Company's cars, is contained in section 215 of The Ontario Railway Act, of 1906. This section provides that: "It shall be the duty of every

street railway company, which shall have unclaimed property left in its cars, to ascertain, if possible, the owner or owners of such property, and to notify such owner or owners of the fact by mail as soon as possible after such property comes into its possession. Every such company which shall have such property, not perishable, in its possession for the period of three months, may sell the same at public auction, after giving notice to that effect by one publication, at least ten days prior to the sale, in a daily newspaper published in the city or town in which such sale is to take place, of the time and place at which such sale will be held, and such sale may be adjourned from time to time until all articles offered for sale are sold. All perishable property so left may be sold by any such street railway company without notice as soon as it can be, upon the best terms that can be obtained."

It will be observed that the duty of the Company under this Section is to ascertain, if possible, the owner or owners and notify them by mail. It would scarcely be possible to notify the owners, unless the lost articles had upon them an address or some means for the identification of the owner. The City relies on the Ontario Railway and Municipal Board Amendment Act, 1910, 10 Edw. VII, Cap. 83, section 7 provides that the Act shall be read with and as part of The Ontario Railway and Municipal Board Act, 1906, and sections 2, 3, 5 and 6 of the Act shall apply to street railways as well as other railways.

It will be observed that the Act, 10 Edw. VII, Cap. 83 is an amendment to the Ontario Railway and Municipal Board Act of 1906, not to the Ontario Railway Act of 1906. That Act, 10 Edw. VII, empowers the Board to determine the just, reasonable, safe, proper and adequate regulations, practices, equipment, appliances or service to be observed and to be used in the transportation of passengers, freight and property. It does not extend to the care of property left on the cars. It only applies to transportation. The Board is of opinion that it has no power or jurisdiction under The Ontario Railway and Municipal Board Amendment Act of 1910 to declare that the practice adopted by the Company in the care of articles left on the cars is unjust, unreasonable and improper, and to fix and prescribe some other method of caring for them and restoring them to the owners.

The application is dismissed, but without costs, except that the City shall pay \$20 for stamps on the formal Order.

Dated at Toronto this Twenty-eighth day of September, A.D., 1912.

(Sgd.) JAMES LEITCH,

Chairman.

PROCEDURE FILE 1030.

Re Forms under The Local Improvement Sections of The Municipal Act approved by The Ontario Railway and Municipal Board under 1 Geo. V, c. 58, sec. 54.

Feb. 1. City of Toronto filed for approval Form of Debenture by-law (and Schedule "A" thereto) covering a number of works, the lifetime of which extends over the same period.

PROCEDURE FILE 1063.

Application by Hilton & Jocelyn Telephone Company, under 10 Edw. VII, c. 84, sec. 9, for intercommunication with other local telephone systems.

Sept. 6. Appointment for hearing further complaints at 1.30 p.m., Sept. 16th, Town Hall, Richard's Landing (altered to Sept. 14th).

Sept. 14. Hearing. Respondents directed to comply within 30 days with Board's Order of December 1st, 1911.

PROCEDURE FILE 1065.

Nelson Telephone Company, Ltd.,

vs.

A. M. Shaver.

(Application for Intercommunication under 10 Edw. VII, Chap. 84, sec. 9).

Jan. 3. Order approving agreement.

Upon the application of the above-named applicant, and upon reading the Agreement between the Applicant and the Respondent, dated December 30th, 1911, and maps and other material filed.

The Board orders that the said Agreement made between the Applicant and Respondent, bearing date the 30th day of December, 1911, be and the same is hereby approved.

And the Board further orders and directs that the said Agreement be, and the same is hereby incorporated as a part of this Order, and that the Applicant and Respondent shall observe and fulfill the conditions provided for in the said agreement.

And the Board further orders and directs that the interchange of service provided for in the said agreement shall be established and be in operation within thirty (30) days from the date hereof.

And the Board makes no order for costs, except that the Applicant and Respondent shall each pay \$5.00 for the law stamps required for this Order.

(Sgd.) JAMES LEITCH,

(Seal.)

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1076.

Ottawa Young Men's Christian Association,

vs.

City of Ottawa.

Jan. 2. Appointment for Hearing Jan. 17th, at Court House, City of Ottawa, at 11 a.m.

Jan. 9. Hearing changed to 24th inst.

Jan 24. Hearing. Judgment reserved.

Feb. 28. Judgment delivered, allowing appeal.

April 9. Notice of Application for leave to appeal served by City of Ottawa.

OPINION OF THE BOARD.

This is an appeal from the Court of Revision of the City of Ottawa, confirming an assessment of \$5,100 for land occupied by part of the second, third and fourth floors, of \$73.950 on part of the Association's building, and of \$19,762 business assessment.

3 R.M.

The Appellants were incorporated in 1900 by 63 Victoria, Cap. 140, Ontario Statute. Section 3 of the Act declares that "The object of the corporation shall be the spiritual, mental, social and physical improvement of young men by the maintenance and support of meetings, lectures, classes, reading rooms, libraries, gymnasiums and such other means as may from time to time be determined upon."

Section 11 of the Act reads: "The buildings of the Young Men's Christian Association of the City of Ottawa, and the land whereon the same are erected, shall, so long as the same are occupied by, and used for the purposes of the Association, be and the same are hereby declared to be exempt from taxation."

The part of the Association's property which the City has assessed, is the part of the land occupied by the building, except the ground floor, and the part of the building which is used for bedrooms or dormitories, and for a restaurant or dining-room used for the purpose of providing and serving meals. The land and building is wholly occupied by the Association. Part of it is used for bedrooms, and for a restaurant where meals are prepared and served. Beside the bedrooms and restaurant, the Association maintains in the building two gymnasiums, reading rooms, library, lecture hall, billiard room, bowling alley, swimming bath, etc., all of which are managed by a large staff of officers and assistants. The building in question is used for no other purposes than the promotion of the Associations objects. It is occupied and used solely for the purposes of the Association. We think that providing bedrooms and meals for the members of the Association is well within the objects of the corporation, as declared by Section 3 of the Act. The bedrooms, restaurant, etc., are not used for or by the general public, but are maintained for members—persons whose spiritual, mental, social and physical improvement is the care of the Association.

The Association are acting in good faith, and are not using their property for any purposes outside of the object of their incorporation.

The Board allows the Appeal. The Assessor or person having charge of the Assessment Roll passed by the Court of Revision, shall amend or alter the Roll in accordance with this decision by the Board.

The Board makes no Order for costs, except that the City shall pay \$10.00 for stamps on the formal Order.

Dated this Twenty-Eighth Day of February, A.D., 1912.

(Sgd.) JAMES LEITCH.

Chairman of The Ontario Railway and Municipal Board.

Between:—

The Ottawa Young Men's Christian Association,

Appellants.

—and—

The Corporation of the City of Ottawa,

Respondents.

(Assessment Appeal).

Upon the application of the above-named appellants, by way of appeal from the Court of Revision of the City of Ottawa, confirming an assessment in the Assessment Roll of the said City for the year 1912, of \$5,100.00 for land occupied by part of the Association Building, of \$73,950.00 on part of the Association

building, and of \$19,762.00 business assessment, and upon hearing the evidence adduced and Counsel for both parties.

It is ordered that the said appeal be allowed.

And it is further ordered that the Assessment Commissioners or other person having charge of the assessment roll passed by the said Court of Revision, do amend or alter the said roll in accordance with this decision.

And this Board does not see fit to make any Order as to the costs of this appeal, save that the Respondents shall pay \$10.00 in stamps on this Order.

(Sgd.) JAMES LEITCH,

(Seal.)

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1077-1078.

The Grey Nuns,

vs.

City of Ottawa.

(Assessment Appeal).

Jan. 2. Board appoints Wednesday, the 17th inst., at 11 a.m. at the Court House, City of Ottawa, for hearing.

Jan. 9. Hearing changed to 24th inst.

Jan. 24. Hearing. Judgment reserved.

Mar. 6. Judgment delivered, allowing appeal.

April 10. Notice of application for leave to appeal to Court of Appeal filed.

April 29. Copy of Order allowing appeal filed.

OPINION OF THE BOARD.

This is an appeal from the Court of Revision of the City of Ottawa, dismissing the appellants' appeal against the Assessment.

The subject of this appeal embraces a number of city lots, together with the buildings erected thereon. The lands are composed of lots 1, 2, 3, 4 and the third of lot 5 on Water Street, and lots 1, 2, 3 and 4, and the west quarter of No. 5 on the south side of Cathcart Street in the City of Ottawa. The portion of the property on Cathcart Street is used for a public hospital. Other portions of the building are used for educational purposes.

The appellants' corporate name is "The Community General Hospital, Alms House and Seminary of Learning of the Sisters of Charity at Ottawa."

It is said that the Community was first founded in 1653 by Margaret Bourgois, who established a school for girls on the Island of Montreal. Letters Patent were granted to her and her congregation on May 1671 by Louis XIV, King of France. Copy of a portion of the Letters Patent have been put in. They recite that "Our beloved Margaret Bourgois, a native of our Town of Troys in the Province of Champagne, has most humbly represented that much time has elapsed since God inspired her with the desire to advance the Catholic faith by the education of per-

sons of her own sex, both French and Indian, in New France, whither she repaired for this purpose as early as the year 1653. Having settled in the Island of Montreal, with several other maidens, she has there followed the calling of the school-mistress, teaching young girls gratuitously, all the trades by which they are enabled to earn their livelihood, etc."

The establishment thus formed was approved by the Bishop, by the Governor-General, and by the Intendant. From that time the congregation have continuously carried out the objects of the Association. The Order was incorporated on the 30th of May, 1849, by Cap. 108 of the Act of the Old Province of Canada, under the name of "La Communauté des Reverendes Soeurs de la Charité." This Act was amended by 24 Victoria, Cap. 116 of the Old Province of Canada, and the name was changed to "The Community General Hospital, Alms House, and Seminary of Learning of the Sisters of Charity at Ottawa."

The buildings in question in this matter are used for a public hospital, seminary of learning maintained for educational purposes, and an alms house. The land assessed is actually used and occupied by the seminary, the hospital and the alms house. There are no profits. The institution is run at a loss.

We are of opinion that this appeal should be allowed, and the property in question should be exempt from taxation.

In reference to the Rideau Street Convent, this property is composed of lots A, 1, 2, 3, 4 on the south side of Rideau Street, and the east half of lots 2, 3 and 4, and lots A and 1 on the north side of Besserer Street in the City of Ottawa. This is a seminary of learning maintained for educational purposes. The buildings and grounds are actually used and occupied for such seminary. There are no profits. This appeal is allowed. The property should be exempt from taxation. The officer who has the custody of the Assessment Roll will make the changes rendered necessary by this opinion.

We make no order for costs, except that the City shall pay \$10.00 for stamp on the formal Order.

Dated at Toronto this Fifth Day of March, A.D., 1912.

(Sgd.) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

Upon the application of the above-named appellants by way of appeal from the Court of Revision of the City of Ottawa confirming the assessment on lots 1, 2, 3, 4, and a one-third of lot 5 on Water Street, and lots 1, 2, 3, 4, and the west one-quarter of lot 5 on the south side of Cathcart Street, and lots A, 1, 2, 3 and 4 on the south side of Rideau Street, and the east half of lots 2, 3, 4, and lots A and 1 on the north side of Besserer Street, all in the said City of Ottawa, with the buildings erected thereon, and upon hearing the evidence adduced and Counsel for both parties,

It is ordered that the said appeal be allowed.

And it is further ordered that the assessor, or other person having charge of the assessment roll passed by the Court of Revision, do amend or alter the said roll in accordance with this decision.

And this Board does not see fit to make any order as to the costs of this appeal, save that the Respondents shall pay \$10.00 in stamps on this order.

(Seal.)

(Sgd.) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1079.

The Sisters of the Congregation of Notre Dame,

vs.

City of Ottawa.

(Assessment Appeal).

Jan. 2. Board appoints Wednesday, 17th inst., at 11 a.m., at the Court House, City of Ottawa, for hearing.

Jan. 9. Hearing changed to 24th inst.

Jan. 24. Hearing. Judgment reserved.

Mar. 6. Judgment delivered allowing appeal as to the property on Gloucester St., but dismissing same as to the Soper property.

April 9. Notice of Motion for leave to appeal served by City of Ottawa..

April 29. Copy of Order allowing appeal filed.

OPINION OF THE BOARD.

The Appellants are incorporated. The buildings and grounds on Gloucester Street are used in connection with and for the purposes of a seminary of learning maintained for educational purposes. There are no profits. Whatever returns the Institution may receive from Pupils are devoted to educational purposes.

We are of opinion that this property should be exempt from taxation. We allow the appeal.

In reference to the Soper property: This property stands upon a different footing. The house is separate and distinct from the Convent on Gloucester Street. It was originally a dwelling house for a single family, until it was acquired by the Appellants. The house is now being used for a boarding and lodging house for about fifteen young ladies, who are attending the Normal School as students. This is the outstanding and determining fact. It is not a seminary of learning; it is a boarding house. So far as this property is concerned we dismiss the Appeal. The officer who has the custody of the Assessment Roll will make the alterations rendered necessary by this opinion.

We make no order for costs, except that the City and the Congregation of Notre Dame shall each pay \$5.00 for the stamp on the formal Order.

Dated at Toronto this Fifth Day of March, A.D., 1912.

(Sgd.) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

Upon the application of the above-named appellants by way of appeal from the Court of Revision of the City of Ottawa confirming an assessment on lots 51, 52 and 53 on the south side of Gloucester Street, lots 51, 52 and 53 on the north side of Nipean Street and also lot 50 on the north side of Nipean Street, in the City of Ottawa, and the buildings thereon, and upon hearing evidence adduced and counsel for both parties, upon hearing read the pleadings,

It is ordered that the appeal herein in reference to lots 51, 52 and 53 on the

south side of Gloucester Street and lots 51, 52 and 53 on the north side of Nipean Street in the City of Ottawa, be and the same is hereby allowed, and that in regard to lot 50 on the north side of Nipean Street in the said City of Ottawa, the appeal be and the same is hereby dismissed.

And it is further ordered that the assessor, or other person having charge of the assessment roll passed by the Court of Revision, do amend or alter the said roll in accordance with this decision.

And this Board does not see fit to make any order as to the costs of this appeal, save that the Appellants and Respondents shall each pay \$5.00 for stamps on this Order.

(Sgd.) JAMES LEITCH,

(Seal.)

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1080.

The Ottawa Ladies' College

vs.

Ottawa.

(Assessment Appeal).

Jan. 2. Board appoints Wednesday, the 17th inst., at 11 a.m., at the Court House, City of Ottawa, for hearing.

Jan. 9. Hearing changed to 24th inst.

Jan. 24. Hearing. Judgment reserved.

Mar. 6. Judgment delivered, allowing appeal.

April 9. Notice of Motion for leave to appeal served by City of Ottawa.

April 29. Copy of Order allowing Appeal filed.

OPINION OF THE BOARD.

This is an appeal against the judgment of the Court of Revision of the City of Ottawa, dismissing the Appellants' appeal against the assessment of the college, and the college buildings, and the grounds attached to or used in connection therewith.

The buildings in this matter which the City assessed are used in connection with and for the purposes of a seminary of learning for educational purposes. There are no profits. The institution is run at a loss. The lands assessed are the grounds of, and attached to, the college. They are actually used and occupied by the college.

The Board is of opinion that this college and grounds should be exempt from taxation. We allow the appeal. The officer who has the custody of the Assessment Roll will make the alteration rendered necessary by this Opinion.

We make no order for costs, except that the Respondents shall pay \$10.00 for stamp on the formal Order.

Dated at Toronto this Fifth Day of March, A.D., 1912.

(Sgd.) JAMES LEITCH.

Chairman of The Ontario Railway and Municipal Board.

Upon the application of the above-named Appellants by way of appeal from the Court of Revision of the City of Ottawa, confirming an assessment on lots 6, 7, 8, 9, 10 and 11 on the south side of Albert Street and lots 6, 7, 8, 9, and 10 on the north side of Slater Street in the City of Ottawa, and the buildings thereon, and upon hearing the evidence adduced and Counsel for both parties,

It is ordered that the said appeal be allowed and that the said lots 6, 7, 8, 9, 10 and 11 on the south side of Albert Street and lots 6, 7, 8, 9 and 10 on the north side of Slater Street in the said City of Ottawa, be and the same are hereby directed to be exempted from taxation by the Respondents.

And it is further ordered that the assessor or other person having charge of the assessment roll passed by the Court of Revision, do amend or alter the said roll in accordance with this decision.

And this Board does not see fit to make any order as to the costs of this appeal, save that the Respondents shall pay \$10.00 in stamps on this order.

(Sgd.) JAMES LEITCH,

(Seal.)

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1081.

City of Toronto

vs.

Toronto Railway Company.

(*Re* Transfers, and Dundas Street and other services and for longer Rush-Hour services.)

Jan. 12. Hearing continued 2.30 p.m. to 5.15 p.m., adjourned to 15th inst., at 2.30 p.m.

Jan. 15. Hearing continued 2.30 p.m. to 5.15 p.m., adjourned to 16th inst., 2.30 p.m.

Jan. 16. Hearing continued, 2.30 p.m. to 5.15 p.m., adjourned to 17th inst., 2.30 p.m.

Jan. 17. Hearing continued (as Examination for Discovery) 2.30-4.30 p.m., Trial to be continued 31st inst., 2.30 p.m.

Jan. 31. Hearing continued 2.30-5 p.m.

Feb. 1. Hearing continued 2.30 to 5 p.m.

Feb. 2. Hearing continued 2.30 to 4.30 p.m.

Feb. 20. Hearing continued 2.30 to 3 p.m., adjourned *sine die*, pending investigation and report by expert to be appointed by City.

PROCEDURE FILE 1084.

Between :—

The Commissioners for the Queen Victoria Niagara Falls Park,
Applicants,

—and—

Eli Danner,

Respondent.

(To have the Board fix the compensation for the Respondent's lands, under 10 Edw. VII., c. 11 & c. 21).

Jan. 4. Hearing —Settlement effected—Judgment accordingly.

OPINION OF THE BOARD.

This claim was settled between the parties by the Park Commissioners agreeing to pay \$2,600 for the property described in the notice, together with the Respondent's property lying to the west of the expropriated parcel, and all damage.

Each party were to pay their own costs, but the Park Commissioners will require to pay \$10.00 for the stamp on the final Order.

Dated this Tenth Day of January, 1912.

(Sgd.) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

Upon the application of the above-named applicants in the presence of the Applicants and Respondent upon hearing the evidence adduced on behalf of the Applicants and Respondent and upon hearing Counsel for the Applicants and Respondent,

The Board Orders that in pursuance of the settlement made between the Applicants and Respondent, the Applicants do pay two thousand and six hundred dollars to the Respondent for all damage and for the property described in the notice together with the property of the Respondent lying to the west of the parcel expropriated; that each party pay their own costs and that the Applicants pay \$10 for the stamp on the final order.

Dated this tenth day of January, 1912.

(Sgd.) JAMES LEITCH,

(Seal.)

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1085.

Between :

The Commissioner for The Queen Victoria Niagara Falls Park,

Applicants,

—and—

School Trustees Section No. 1, Lot. No. 17, Broken Front Concession,
Township of Willoughby,

Respondents.

(To have the Board fix the compensation for the Respondents' lands,
under 10 Edw. VII., c. 11 and c. 21.)

Jan. 4. Hearing. Judgment reserved.

Jan. 10. Judgment delivered.

OPINION OF THE BOARD.

The Park Commissioners have taken 0.11 acres of land. The line of the land taken, while it goes within a few feet of one corner of the schoolhouse, does not interfere with the structure. We do not think that the taking of this land will impair the usefulness of the school building. The schoolhouse is of brick, and is in good serviceable condition.

We think if the Park Commissioners pay to the School Trustees \$100.00 for the land taken, and the damage, if any, the justice of the case will be met. Each party will have to pay their own costs, but the Park Commissioners will require to pay \$10.00 for the stamp on the final order.

Dated this Tenth Day of January, 1912.

(Signed) JAMES LEITCH,
Chairman, Ontario Railway and Municipal Board.

Upon the application of the above named applicants in the presence of the applicants and respondents upon hearing the evidence adduced on behalf of the applicants and respondents and upon hearing counsel for the applicants and respondents,

The Board orders that the applicants pay the respondents the sum of One hundred dollars for damages and land taken, that each party pay their own costs, and that the applicants furnish a stamp for \$10 on this the final order.

Dated this Tenth day of January, 1912.

(Seal.) (Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1086.

Between :

The Commissioners for The Queen Victoria Niagara Falls Park,
Applicants,
—and—

School Trustees, Sec. No. 2, Lot 16, Broken Front Concession,
Township of Willoughby,
Respondents.

(To have the Board fix the compensation for the Respondents' lands under 10 Edw. VII., c. 11 and c. 24.)

Jan. 4. Hearing. Judgment reserved.

Jan. 10. Judgment delivered.

OPINION OF THE BOARD.

The Park Commissioners in this case have only taken 0.21 acres of land. This parcel takes about five feet from off the porch built over the entrance to the schoolhouse. The building is very old, and has not been repaired for some time in expectation that a new building would be necessary. The necessity of a new building

no doubt accounts for the somewhat exaggerated amount that the School Trustees demand from the Park Commissioners. Mr. Hill, on behalf of the School Trustees, addressed a very ingenious argument to the Board in support of an award for a large amount to be applied towards the erection of a new school. It must be borne in mind that the Park Commissioners occupy a fiduciary position as well as the School Trustees, and because a new school is needed is no reason why the Park Commissioners should contribute a larger amount than the right of the case demands. Our view of the evidence is that the Park Commissioners should pay the School Trustees \$250.00 for the land taken, and the damages. Each party will have to pay their own costs, but the Park Commissioners will have to furnish a stamp for \$10.00 on the final order.

Dated this Tenth day of January, 1912.

(Signed) JAMES LEITCH,
Chairman, Ontario Railway and Municipal Board.

Upon the application of the above named applicants in the presence of the applicants and respondents, upon hearing the evidence adduced on behalf of the applicants and respondents, and upon hearing counsel for the applicants and respondents,

The Board orders that the applicants pay the respondents the sum of Two hundred and fifty dollars for damages and land taken—that each party pay their own costs, and that the applicants furnish a stamp for \$10 on this the final order.

Dated 10th day of January, 1912.

(Seal.) (Signed) JAMES LEITCH,
Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1087.

Re City of Toronto and Toronto and York Radial Railway Co.

(Application to Board under 1 Geo. V., c. 119, sec. 6 (2).)
(Mimico Division.)

Nov. 13. Appointment for hearing, Dec. 3rd, 1912, at Board's Chambers.

Dec. 3. Hearing continued. Board directs inventories to be filed on 6th inst. and adjourns hearing to 10th inst., at 2.30 p.m.

Dec. 6. Inventory in duplicate filed by Toronto and York Radial Railway Co.

Dec. 10. Hearing continued, adjourned to 16th inst., at 3 p.m.

Dec. 16. Hearing continued, adjourned *sine die*.

PROCEDURE FILE 1090.

Application by the City of Guelph, under sec. 388b of "The Consolidated Municipal Act, 1903," for approval of Bridge Construction By-law S77 (\$2,810.00).

Jan. 5. Engineer's report received and considered. Application granted. Order.

TORONTO, January 3rd, 1912.

The Chairman of The Ontario Railway and Municipal Board, Toronto.

SIR,—I herewith submit to you my report on the plain concrete arch bridge at Neeve Street, Guelph, based on my calculation made from the plan submitted by your Board to me. I may add that no stress sheet or details of loading are given. The bridge consists of two spans of 40 feet each, with a rise of 5 feet at the crown—the thickness of arch is 18 inches both at crown and haunches, or symmetrical throughout, with a fill at the crown of 15 inches to make up the street surface.

Taking one foot width of arch throughout, and dividing it into equal parts for equal moments of inertia, I get a dead load of 430 lbs. per lineal foot on one arch. The curve of pressure resulting from this is at a maximum distance of 7-16 inch below the neutral axis of the arch ring, the horizontal thrust being 21,935 lbs., and the maximum thrust at the haunches 24,450 lbs.

The Board's specification requires a live loading of 40 ton cars plus the allowance for impact as per formula given therein. Taking this over a 40 foot span gives a total moment of 1,116,100 foot lbs., or equally roughly to the weight of a car weighing 70 tons without impact. This gives an equivalent uniform live load of 558 lbs. per lineal foot on a one foot strip of arch. The curve of pressure resulting from this combined with the above dead load, placed all over the span, is at a maximum distance below the neutral axis of $\frac{7}{8}$ of an inch, the horizontal thrust being 44,944 lbs. at the crown, and a maximum thrust of 50,100 lbs. at the haunches. Taking 216 square inches as the area of the strip of arch in question the unit pressure is 232 lbs. at the haunches and 208 lbs. per square inch at the crown, less than 400 lbs. required by your specifications.

Placing this live loading two-thirds over the span with the above dead load all over it, I get a horizontal thrust of 39,705 lbs. at the crown and a maximum thrust at the right and left haunches respectively of 45,500 lbs. and 42,300 lbs., all of which are well within the specified unit stress. The curve of pressure is at a maximum distance below the neutral axis of 4 inches on the left hand and 1-29/32 inches on the right hand half of the arch. The thrust on the left is, therefore, slightly outside the middle third of the arch, but considering the large allowance for impact used and the fill over the arch assisting to deaden the shock, I am of opinion that the arch is of sufficient strength to withstand any stress put upon it from this loading. I therefore recommend your Board to accept the plans.

Yours truly,

(Signed) H. W. MIDDLEMIST.

Upon the application of the above named Corporation, and upon reading the petition of the said applicants, the affidavits of George John Thorp, Mayor, and Thomas James Moore, Clerk, of the said City, the certified copy of the said By-law, the report of the Board's engineer herein, and the other material filed,

The Board orders that the said By-law No. 877, intituled "The Corporation of the City of Guelph. By-law No. 877. A By-law to provide for the issue of Debentures to the amount of \$2,810.00 to pay for rebuilding the Neeve Street and Huskisson Street Bridges within the City of Guelph," be and the same is hereby approved.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1095.

Detroit River Tunnel Company

vs.

City of Windsor.

(Assessment Appeal, \$2,500,000.)

Jan. 5. Notice of application filed by appellants' solicitors.

Jan. 5. Reply directed within ten days.

Jan. 15. Reply filed by respondents.

May 16. Order (in terms of draft approved by counsel).

Upon the application of the applicant, and upon reading the consent of the solicitor for the respondent filed,

The Board orders that the decision of the Court of Revision of the City of Windsor, of the 7th day of December, 1911, confirming the assessment of the Detroit River Tunnel Company at \$2,500,000, be, and the same is hereby amended, and the assessment of the said tunnel is hereby reduced to the sum of \$444,444.

And the Board makes no order as to costs, except that the applicant shall pay \$5.00 for law stamp on this order.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1099.

Application by the Town of Cochrane, under 8 Edw. VII., cc. 51, for validation of By-law 46, and Debentures (\$38,500.00 for various public works.)

Jan. 2. Order.

Upon the application of the said Corporation, and upon reading the notice of application filed by J. M. McNamara, solicitor for the applicants, the affidavits of Walter Stanton Carter, Mayor, and Sidney L. Bradley, clerk. of the said town, the certified copy of the said By-law No. 46, and the other material filed,

The Board orders that the said By-law No. 46, of the Municipal Corporation of the Town of Cochrane, intituled "By-law Number 46. Being a By-law to provide for raising the sum of Thirty-eight Thousand Five Hundred Dollars (\$38,500.00) by way of loan, upon the security of debentures of the town of Cochrane, in the district of Nipissing, etc.," be and the same is hereby approved and validated.

And it is ordered, pursuant to the provisions of "The Ontario Municipal Securities Act, 1908," that a certificate be granted approving the said By-law of the Municipal Corporation of the Town of Cochrane, and declaring the same valid and binding, and that its validity is not open to question in any court on any ground whatever, and that the debentures issued under the authority of and in accordance with the said By-law be also approved, and that the same be certified as provided by the said Act.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1100.

Application by the Town of Oshawa under 6 Edw. VII, c. 34, s. 21, as amended by 6 Edw. VII, c. 73, s. 22, for approval of sewerage Extension By-law No. 794. (\$24,500 for sewage purposes).

Jan. 4. Proof filed as directed.

Jan. 5. Order.

Upon the application of the above named Corporation, and upon reading the notice of application filed by Messrs. Malone, Malone & Long, solicitors for the applicant, the affidavits of William E. N. Sinclair, Mayor, and Thomas Morris, Clerk, of the said Town, the certified copy of the said By-law, and the other material filed,

The Board orders that the said By-law No. 794, intituled "By-law Number 794. A By-law of the Corporation of the Town of Oshawa to authorize the issue of debentures to the amount of \$24,500 for the extension and improvement of the sewage system of said Town" be and the same is hereby approved.

(Seal)

(Signed) JAMES LEITCH,
Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1102. (See P. F. 1096).

Application for annexation to City of Hamilton, of Lot No. 3, in the Broken Front Concession of the Township of Barton, and that Part of Lot No. 3 in the First Concession thereof lying northerly of the southerly limit of the Grand Trunk Railway Main Line.

Jan. 18. Hearing pursuant to appointment—annexation decreed. Order.

Upon the application of the said applicants, made on the tenth day of January, 1912, and upon reading the petition of the said applicants, dated the 9th day of October, 1911, and the resolution of the Council of the Corporation of the City of Hamilton, passed on the 26th day of December, 1911, and upon hearing what was alleged by counsel on behalf of the applicants, the Corporation of the City of Hamilton and the Corporation of the Township of Barton:

This Board doth order and proclaim that the portion of the Township of Barton, in the County of Wentworth, adjacent to the City of Hamilton, described as follows:

Being composed of Lot Number Three in the Broken Front Concession of the Township of Barton, in the County of Wentworth, and that part of lot Number Three in the First Concession of said Township lying northerly of the southerly limit of the right of way of the Grand Trunk Railway main line, and the allowance for road between lot number three in the Broken Front Concession and lot number three in the First Concession of the said Township, be and the same is hereby annexed to the said City of Hamilton; the said annexation shall take effect upon and subject to the following terms and conditions, namely:—

1. Those portions of the said lands lying south of the northerly limit of the right of way of the Hamilton Radial Electric Railway Company, shall be assessed for the year 1912, and thereafter in the same manner as lands in the old portion

of the City, and the same rate of taxation shall be levied against the said lands for the year 1912, and thereafter as shall be levied against the property in the old portion of the City.

2. Those portions of the said lands lying northerly of the right of way of the Hamilton Radial Electric Railway Company shall not be assessed for the years 1912 to 1924, inclusive, for any greater amount than they were assessed at by the Township Assessor for the year 1911, except that where any portion of the lands described in this sub-section shall be built upon or improved or has been or shall hereafter be subdivided into parcels or lots, the Corporation of the City of Hamilton shall be at liberty, in its discretion, from time to time during the years 1912 to 1924, inclusive, to assess the said lands, or any of them, in the same manner as property in the said old boundaries of the City.

3. The assessment of the said territory for the year 1912 may be taken by the City assessors at any time prior to the passing of a by-law striking the rate of taxation for the year 1912 for the said territory.

4. The said annexed territory shall form part of Ward Number eight of the said City.

5. This Order shall come into force on the eighteenth day of January, 1912.

(Seal)

(Signed) JAMES LEITCH,

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1103. (P. F. P. 89).

Application under 6 Edw. VII, c. 34, sec. 21, and amendments, for annexation to Town of North Toronto of parts of Township of York (Plans 1570, 1611 and M346).

Feb. 2. Copy of Resolution of Town Council of North Toronto declaring expediency of annexation and of Resolution of Township Council York, consenting, filed, together with copy of altered petition.

Feb. 15. Hearing. Application granted.

In the matter of the application of Edward Bentley Stockdale and Charles Douglas Warren for annexation to the Town of North Toronto of part of the Township of York in the Avenue Road District.

Upon the application of the said applicants made on the Fifteenth day of February, 1912, and upon reading the resolution of the Council of the Corporation of North Toronto passed on the Fourth day of November, 1911, the resolution of the Township of York passed on the Sixth day of November, 1911, and the petition of the said applicants, upon hearing what was alleged by counsel on behalf of the applicants Edward Bentley Stockdale, Charles Douglas Warren and of Helen McCaig, Allan G. Ogg, Mary Gibson, F. J. O'Callaghan, Richard Livingstone, F. Louise Dickinson, May Milligan, Adelaide I. Baker, E. M. Begg, Julia Eadie, Helena L. Tanner, Delilah Tanner, Frances A. Tanner, Charles H. Tanner, G. A. Tanner, Flora McArthur, E. M. Tegart, Mary Tegart, Hester A. Tegart, F. E. Tegart, Caroline Tanner, Frank W. G. Banger and G. S. Warren, being all the registered owners of the said lands sought to be annexed from the Township of York to the Town of North Toronto;

The Board orders and proclaims that the lands and premises in the Township of York mentioned in the said petition and being described as follows:

Firstly: All the land west of Avenue Road shown on plan 1570, registered in the Registry Office for the East and West Ridings of the County of York, and Lots One, Forty-one, Forty-two, Sixty-nine and Seventy west of St. George's Road, as shown on plan 1611, registered in the said Registry Office for the Township of York, and lots one hundred and fifty-two, one hundred and fifty-three as shown on said plan 1611 to the east of St. George's Road, together with the three roads Alexandra Boulevard, Lytton Boulevard and Mona Street, shown on plan 1570, together with St. George's Road shown on plan 1611. The said lots on Plan 1570 being numbered from 1 to 167; said block of land measuring on the north boundary of said plan 1570 from the westerly side of Avenue Road 2,266 feet to the east side of St. George's Road, shown on plan Number 1611; the easterly boundary of said land as shown on plan 1570 along Avenue Road from the northerly boundary to the southerly boundary of said lands shows a frontage of 685 feet 7 inches; the southerly boundary of said lands from the west side of Avenue Road measured westerly shows a distance of 2133 feet 4 inches from Avenue Road to the Westerly boundary of Plan 1570 the westerly boundary of said land, as shown on plan 1570 commencing at the south-west angle of Lot One hundred and Twenty-eight as shown on plan 1570 to the north-west angle of Lot Forty-seven as shown on plan 1570, being the northerly boundary of plan 1570 shows a distance of 669 feet 7 inches being composed also of said lots One, Forty-one, Forty-two, Sixty-nine, Seventy, One hundred and fifty-two, One hundred and fifty-three, and St. George's Road on Plan 1161, said land being part of Lot Number Three, Concession One west of Yonge Street and more particularly described as follows: Commencing at the south-east angle of Lot One hundred and fifty-three, thence westerly along the north side of Crescent Boulevard as shown on plan 1611, a distance of 248 feet 5 inches to a point at the south-west angle of lot Seventy, thence Northerly along the west boundaries of Lots Seventy, Sixty-nine, Forty-two and Forty-one in a straight line to the north-west angle of Lot One a distance of 802 feet four inches; thence easterly along the fence line dividing Lots Three and Four, Concession One, west of Yonge Street, a distance of 116 feet to the north-west angle of Lot Forty-seven, as shown on plan 1570; thence southerly along the eastern boundary of St. George's Road as shown on Plan 1611, to a point at the north-west angle of Lot One hundred and fifty-two as shown on plan 1611, 669 feet 7 inches; thence easterly along the northerly boundary of Lots One hundred and fifty-two, One hundred and fifty-three, One hundred and fifty feet to the north-east angle of Lot One hundred and fifty-three; thence southerly along the easterly boundary of said Lot One hundred and fifty-three, 134 feet 2 inches to the place of beginning. Secondly all the land in the Township of York, lying immediately to the west of the Town limit of North Toronto and to the south of the parcel firstly described, sought to be annexed to the said land and being part of the south half of Lot Three in the first Concession, in the Township of York as laid out on a plan prepared by Wilbert S. Gibson dated 11th September, 1911, and filed in the Land Titles Office at Toronto as plan M346 which said land may be more particularly described as follows: Part of Lots Ninety-four, One hundred and eighty-three, Two hundred and fifty-one, two hundred and fifty, Two hundred and ninety-eight, lying immediately to the west limit of the Town of North Toronto as shown on said plan prepared by Wilbert S. Gibson, together with Lots Two hundred and ninety-five, Two hundred and ninety-six, Two hundred

and ninety-seven, Two hundred and fifty-one, Two hundred and fifty-two, Two hundred and fifty-three, Two hundred and fifty-four, Two hundred and fifty-five, One hundred and eighty-two, One hundred and eighty-one, One hundred and eighty, One hundred and seventy-nine, Ninety-five, Ninety-six, Ninety-seven, Ninety-eight, Ninety-nine, the easterly twenty-five feet from front to rear of Lot One hundred, Lot One hundred and seventy-eight and Two hundred and fifty-six, that part of Hillhurst Boulevard sixty-six feet in width from the west limit of North Toronto extending westerly to a line drawn from the westerly limit of the east half of Lot One hundred to the westerly limit of Lot One hundred and seventy-eight Bella Avenue, as shown on said plan and that part of Courtleigh Boulevard west of the west limit of the Town of North Toronto to the west limit of Lot Two hundred and fifty-six and which said land may be described as follows: Commencing at a point situate 12 feet 4 inches west from the north-east angle of Lot Two hundred and ninety-eight and being the west limit of the Town of North Toronto, thence westerly in a straight line 188 feet 5 inches to a point situate at the north-west angle of Lot Two hundred and ninety-five, thence southerly 134 feet 4 inches to the north side of Courtleigh Boulevard; thence westerly along the north side of Courtleigh Boulevard 248 feet 5 inches to a point situate at the south-west angle of Lot Seventy, as shown on Plan 1611; thence southerly in a straight line across Courtleigh Boulevard along the westerly boundary of Lots Two hundred and fifty-six and One hundred and seventy-eight and across Hillhurst Boulevard and along the westerly boundary of the east half of Lot One Hundred to the southern boundary of Lot One hundred a distance of 533 feet 4 inches; thence easterly along the southerly boundary between original Townships Lots One and Three 281 feet 1 inch more or less to the west limit of the Town of North Toronto, thence northeasterly along the west limit of the Town of North Toronto 700 feet more or less to the southerly boundary of Lot One hundred and fifty-three as shown on plan 1611 and the northerly boundary of Lot 298 Plan M346 being the point of commencement; be and the same are hereby annexed to the Town of North Toronto upon and subject to the following terms and conditions, namely:

1. The said lands shall be added to Eglinton Ward West, in the Town of North Toronto as of 1st January, 1912.

2. That the taxes and rates for the year 1911, or any prior year on any of the lands included in the territory hereby annexed, which shall not have been collected before January 1st, 1912, shall be collected by and belong to the Township of York and all right to collect the same, including distress for non-payment, or, if necessary, the sale of the said lands or any of them, shall remain in the said Township as though this Order had not been made and all adjustments between the Town of North Toronto and the Township of York shall be made as of the first day of January, 1912.

3. The said Town of North Toronto may at any time in the year 1912, prior to the passing of the by-law striking the rate of taxation for the said year assess, (subject to the rights of appeal provided by the Assessment Act) the lands included in the territory hereby annexed, and the owners and occupiers thereof for the said year 1912, and the assessment so made, if made, or the regular assessment, if any such assessment is made, shall be the assessment on which taxes in the said territory for the year 1912 shall be calculated.

(Seal)

(Signed) JAMES LEITCH,
Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1104.

Application by the County of Prince Edward, under 8 Edw. VII, c. 51, for validation of By-law authorizing the issue of debentures to the amount of \$100,000 (in aid of County Roads).

Jan. 4. Application filed,—letter to applicant's solicitor.

Jan. 16. Letter from applicant's solicitor, and letter in reply advising re material to be filed.

PROCEDURE FILE 1105. (P. F. P. 90).

Application by the Peterborough Radial Railway Co., under 10 Edw. VII, c. 81, sec. 3, as amended by 1 Geo. V, c. 54, for approval of plans of proposed extensions.

Jan. 6. Application and plans filed.

Jan. 8. Plans considered by Board and Board's engineer, and approved.

Jan. 8. Plans certified and approved.

PROCEDURE FILE 1106. (See P. F. 532).

Hamilton

vs.

Public School Board Section 8, Township of Barton, and Township of Barton.

(For payment of Moneys under Orders in P. F. 532).

Jan. 8. Application filed.

Jan. 12. Reply of Township of Barton filed.

Jan. 18. Hearing pursuant to appointment—application not tried by Board, having no jurisdiction.

PROCEDURE FILE 1107. (See P. F. 421).

Application by International Railway Co., under 6 Edw. VII, c. 30, sec. 162, 171, for approval of its revised tariff of fares and tolls.

Jan. 10. Tariffs filed for approval.

Feb. 9. Solicitors for Niagara Falls Board of Trade, (see P. F. 421) having written approving of Tariff on behalf of said Board.

Feb. 9. Tariff approved and certified.

PROCEDURE FILE 1108.

Wallacetown and Lake Shore Telephone Association, Ltd.,

vs.

Fingal Telephone Co., Ltd.

(For connection under 10 Edw. VII., c. 84, sec. 9.)

Jan. 12. Application filed.

4 R.M.

PROCEDURE FILE 1109. (I. \$18,163.00.)

Application by the Town of St. Mary's, under 8 Edw. VII., chap. 51, for validation of its By-law No. 217, and debentures (\$18,163.00 for certain local improvements).

Jan. 15. Application and material filed.

Jan. 25. Affidavit as to irregularities filed as directed.

Jan. 27. Application and material considered and approved.

Order.

Upon the application of the said Corporation, and upon reading the notice of application, the affidavits of Thomas M. Clark, clerk, of the said town, the verified copy of the said By-law 217, and the other material filed,

The Board orders that the said By-law No. 217, of the Municipal Corporation of the Town of St. Mary's, intituled "By-law No. 217 of the Town of St. Mary's. A By-law to raise by way of loan the money required for meeting the cost of certain local improvements," be and the same is hereby approved and validated.

And it is ordered, pursuant to the provisions of "The Ontario Municipal Securities Act, 1908," that a certificate be granted approving the said By-law of the Municipal Corporation of the Town of St. Mary's, and declaring the same valid and binding, and that its validity is not open to question in any court on any ground whatever, and that the debentures issued under the authority of and in accordance with the said By-law be also approved, and that the same be certified as provided by the said Act.

(Seal.)

(Signed) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1110. (P.F.P. 91.)

Application by the Toronto Suburban Railway Co., for approval of plans for extension of its Western Line to the Village of Woodbridge.

Jan. 16. Plan, profile and book of reference filed.

Jan. 31. Plan approved and certified.

PROCEDURE FILE 1111. (P.F.P. 92.)

Application by the City of Hamilton, under 9 Edw. VII., chap. 73, sec. 12, as amended by 10 Edw. VII., chap 85, sec 6, for approval of By-law No. 1,207 (\$70,000.00 for extension of Birch Ave., as ordered by the Railway Commissioners for Canada. Order No. 15,211).

Jan. 18. Application and material filed, considered and approved. Order.

Upon the application of the said Corporation, and upon reading the notice of application filed by Frank Russell Waddell, Esquire, solicitor for the applicant, the statutory declarations of George Harman Lees, Mayor; Samuel Horatio Kent, clerk; William Rankin Leckie, treasurer, and Andrew Fullerton Macallum, civil engineer, of the said city, the certified copy of the said By-law, and the other material filed,

The Board orders that the said By-law, intituled "By-law No. 1207. For the issue of debentures for \$70,000.00 to pay the cost of the extension of Birch Avenue

from its present northerly terminus to Gilkison Street," be and the same is hereby approved, under and in pursuance of Section 12 of the Municipal Amendment Act, 1909, as amended by Section 6 of the Municipal Amendment Act, 1910.

(Seal.)

(Signed) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1112. (I.C. \$35,000.)

Application by the Town of Harriston, under 8 Edw. VII., c. 51, for validation of By-law 465, and debenture (\$35,000 for waterworks).

Jan. 19. Application and material filed.

Jan. 20. Application and material considered and approved.

Order.

PROCEDURE FILE 1113.

Application by The Bell Telephone Company of Canada, under "The Ontario Telephone Act, 1910" for approval of agreement with the Town of Sandwich.

Jan. 20. Application and material filed.

Jan. 30. Application and material considered and approved.

Feb. 13. Order.

Upon the application of The Bell Telephone Company of Canada, Limited, and upon reading a copy of an Order-in-Council approved by His Honour the Administrator of the Province of Ontario, bearing date the 17th day of December, A.D., 1908, a certified copy of By-law No. 432, 1911, of the Town of Sandwich, being a By-law to authorize the execution of an agreement between The Bell Telephone Company of Canada, Limited, and the said Town, and the copy of the said agreement filed,

The Board orders that the said Agreement, bearing date the Eleventh day of December, 1911, between The Bell Telephone Company of Canada, Limited, of the first part, and the Corporation of the Town of Sandwich of the second part, be and the same is hereby approved.

(Seal.)

(Signed) A. B. INGRAM,

Vice-Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1114.

Application by the Brighden Rural Telephone Company, Ltd., under 10 Edw. VII., chap. 84, sec. 10, for approval of agreement with the St. Clair Telephone Company, Ltd.

Jan. 20. Application and copy of agreement filed.

March 28. Application and copy of agreement considered and approved.

Order.

Upon the application of the St. Clair Telephone Company, Limited, and the Brighden Rural Telephone Company, Limited, and upon reading the memorandum of agreement made the 10th day of January, 1912, by and between the said companies, certified copy of which agreement has been filed in the office of the Board,

The Board orders that the said agreement (save and except in so far as it concerns or relates to charges, rates, rents or tolls) be and the same is hereby approved, under and in pursuance of Section 10 of "The Ontario Telephone Act, 1910," provided that the Board may at any time hereafter of its own motion, or upon any application or complaint, rescind the order and withdraw its approval of the above mentioned agreement, and require the same to be altered, amended, varied, or otherwise changed or modified, as to the said Board may seem requisite or proper.

(Seal.)

(Signed) A. B. INGRAM,
Vice-Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1115.

Application by the Board of Trade of Galt, Hespeler, Preston, Berlin, and Waterloo, under 1 Geo. V., chap. 52 (Ont.), and 1 Geo. V., chap. 23, sec. 5 (Dom.), for interswitching privileges to manufacturers in said Towns over and between the Canadian Pacific Railway, the Grand Trunk Railway, the Galt, Preston, and Hespeler Street Railway and the Preston and Berlin Street Railway.

Jan. 20. Application filed.

Feb. 17. Separate application filed on behalf of the Board of Trade of each of the above mentioned municipalities.

March 5. Reply filed by Respondent Street Railway Companies.

June 20. Hearing of Galt in conjunction with Dominion Railway Commission.

June 20. Order decreed as applied for.

ORDER NO. 17064.

THE BOARD OF RAILWAY COMMISSIONERS FOR CANADA

and

THE ONTARIO RAILWAY AND MUNICIPAL BOARD.

Friday, the 5th day of July, A.D., 1912.

D'ARCY SCOTT,

Assistant Chief Commissioner.

JAMES MILLS,

Commissioner.

S. J. McLEAN,

Commissioner.

(Of the Board of Railway Commissioners for Canada.)

JAMES LEITCH,

Chairman.

A. B. INGRAM,

Vice-Chairman.

H. N. KITTSON,

Commissioner.

(Of the Ontario Railway and Municipal Board.)

In the Matter of the applications of the Boards of Trade of Galt, Preston, Hespeler, Berlin, and Waterloo, in the Province of Ontario, under Section 225 of the Railway Act, as amended by Chapter 22, 1-2 George V., Section 5, and Section 98 of the Ontario Railway Act, as amended by Chapter 52 of the Ontario Acts, 1911, for an Order directing the Canadian Pacific Railway Company, the Grand Trunk Railway Company, the Galt, Preston, and Hespeler Street Railway Company, and the Preston and Berlin Street Railway Company to connect their lines or tracks in the Towns of Galt, Preston, Hespeler, Berlin, and Waterloo, as to admit the

safe and convenient transfer or passing of engines, cars, and trains from the tracks of one of the above to those of the others, and that such connections shall be maintained and used by the said Railway Companies, respectively.

Case Nos. 1731, 2391, 2392, 2393, and 2394.

Upon the hearing of the application at a Joint Session of the Board of Railway Commissioners for Canada and the Ontario Railway and Municipal Board held at Galt, Ontario, on June 20th, 1912, in pursuance of the powers conferred upon them under the provisions of the Acts hereinabove recited, the applicant Municipalities, the Grand Trunk Railway Company, the Galt, Preston, and Hespeler Street Railway Company, and the Preston and Berlin Street Railway Company being represented by counsel at the hearing, the evidence adduced, and what was alleged—

It is ordered that the railways of the Grand Trunk Railway Company and the Galt, Preston, and Hespeler Street Railway Company be connected in the towns of Galt, Preston, and Hespeler, and that the railways of the Grand Trunk Railway Company and the Preston and Berlin Street Railway Company be connected in the towns of Berlin and Waterloo, in the said Province of Ontario, at points in the said towns to be agreed upon between the said Companies within ten days from the date of this Order, for the purposes applied for, and for the reasonable receiving, forwarding, delivering, and interswitching of traffic between the said railways; that plans showing the locations of said connections be submitted for the approval of an Engineer of the Board of Railway Commissioners for Canada; that in the event of the Companies failing to agree upon the said points of connection, the same be fixed by the Chief Engineer of the Board of Railway Commissioners for Canada; that the work of construction be done by the respective Railway Companies on their own rights of way, provided that the Galt, Preston, and Hespeler Street Railway Company and the Preston and Berlin Street Railway Company do the work of overhead wiring on the property of the Grand Trunk Railway Company, as well as upon their own rights of way; that the question of the distribution of cost be reserved for further consideration, except that with regard to the interchange connection at Hespeler, the work, by agreement, be done by Mr. Cribbs to the satisfaction of an Engineer of the Board of Railway Commissioners for Canada, the said Cribbs having undertaken to do the same at a cost of one thousand dollars; and that the determination of the proper interswitching rates be reserved until the matter has been reported upon by the Traffic Officer of the Board of Railway Commissioners for Canada.

(Signed) D'ARCY SCOTT,

Assistant Chief Commissioner, Board of Railway Commissioners for Canada,
Chairman of Joint Session.

PROCEDURE FILE 1116. (I. C. \$15,000.)

Application by the Town of Collingwood, under 8 Edw. VII, Chap. 51, for validation of By-law No. 764, and debentures (\$15,000 for certain improvements to Public Schools).

Jan. 22. Application and material filed.

Jan. 29. Application and material considered and approved. Order.

PROCEDURE FILE 1117. (I. C. \$30,000).

Application by the Town of Collingwood, under 8 Edw. VII., c. 51, for validation of its by-law No. 765, and debentures (\$30,000 for erection of a Public School).

Jan. 22. Application and material filed.

Jan. 29. Application and material considered and approved. Order.

PROCEDURE FILE 1118 (I. C. \$14,000).

Application by the Town of Collingwood, under 8 Edw. VII., chap. 51, for validation of its by-law No. 766, and debentures, (\$14,000 for Fire Hall).

Jan. 22. Application and material filed.

Jan. 29. Application and material considered and approved. Order.

PROCEDURE FILE 1119. (I. C. \$8,000).

Application by Village of Norwich under 8 Edw. VII, c. 51, for validation of by-law 541, and debentures (\$8,000 Electric Distribution Plant).

Jan. 25. Application and material filed.

Jan. 27. Application and material considered and approved. Order.

PROCEDURE FILE 1120. (I. C. \$16,000).

Application by the Town of Sudbury, under 8 Edw. VII., chap. 51, for validation of by-law No. 268, and debentures, (\$16,000 for fire protection).

Jan. 29. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1121 (I. C. \$15,000).

Application by the Town of Sudbury, under 8 Edw. VII, Chap. 51, for validation of by-law No. 269, and debentures. (\$15,000 for extension of power house and auxiliary pumping plant).

Jan. 29. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1122 (I. C. \$50,000).

Application by the Town of Sudbury, under 8 Edw. VII., chap. 51, for validation of By-law No. 270, and debentures (\$50,000 for certain street improvements).

Jan. 29. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1123. (I. C. \$15,000).

Application by the Town of Sudbury, under 8 Edw. VII., chap. 51, for validation of By-law No. 271, and debentures. (\$15,000 for waterworks extensions).

Jan. 29. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1124.

Application by the Town of Sudbury, under 8 Edw. VII., chap. 51, for validation of By-law No. 272, and debentures (\$50,000 for sewerage system extensions).

Jan. 29. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1125. (P. F. P. 93) (P. F. P. 94).

Application by the Toronto Suburban Railway Co., for approval of plans for extension of its line from Lambton to Brampton & Guelph. (Georgetown).

Feb. 5. Plan, profile and Book of Reference filed. (See P. F. P. 93 (2.54 to 15.12 miles) and (P. F. P. 94 (15.12 to 25.52 miles)) and referred to Board's Engineer.

Feb. 9. Plans, &c., approved and certified in accordance with Engineer's report.

PROCEDURE FILE 1126. (P. F. P. 95).

In the matter of enquiry by the Board, under 6 Edw. VII., chap. 31, sec. 18, into the causes, &c., of accident on Toronto Railway at the corner of King and St. Lawrence Streets, and all switches of the Railway Company.

Jan. 1. The Board having instructed its Engineer to inspect and report, and having received his report,

Feb. 24. Further report and blue prints received from Engineer and considered and approved.

Mar. 12. Hearing. Engineer's plan &c., of switch approved. Engineer to inspect all switches at or near foot of grades and report thereon.

April 30. Board appoints Tuesday, May 7th, 2.30 p.m., to resume adjourned hearing.

May 7. Hearing. Board approves Engineer's reports.

Gentlemen,—I recommended to you, in my report of December 28, 1911, "That the construction of this switch and curve (where the accident occurred) be reversed, so cars on the north track of King Street, for St. Lawrence Street, will enter this switch from the west, etc."

This, however, would necessitate cars going into St. Lawrence Street track backing against the west-bound traffic, and also backing across east-bound traffic; a condition that would result in these cars being for too great a length of time in the way of a car running wild, as on the evening of December 24th, down the grade from the junction of Queen and King Streets.

I enclose blue print, marked "Exhibit B," of the St. Lawrence St. switch, as it was in position at the time of the accident, and blue print of a "switch throwing mechanism normally open to main line" marked "Exhibit C."

I desire to withdraw my recommendation of Dec. 28th, and substitute therefor, as being less dangerous, the recommendation that a switch be installed in the place of the one now in use, substantially as shown on the blue print herewith marked "Exhibit C."

This switch will be held open normally to the main line for west bound traffic, and cars can enter for St. Lawrence St. only when the switch is opened by a switch attendant, or conductor operating the lever shown and so held open (for St. Lawrence Street) during the time the car is actually passing through. Immediately upon the lever, as shown, being released, the spring mechanism returns the switch point to its normal position—that is open to the main line for west bound traffic.

I would further recommend that any other facing switches on the Toronto Street Railway System, located as this one now is at the foot of a grade sufficiently steep to accelerate the car speed with the use of the electric current to a dangerous velocity, be changed to switches substantially as shown on the blue print herewith, marked "Exhibit C."

I also recommend that the full stop order at the regular stopping place (i.e., the white pole on the north side of King St.) which is 137.5 feet from the point of the St. Lawrence St. switch, and the slow speed order (the car being well under control) on this grade, and all other grades be rigidly enforced.

Respectfully submitting the above, I am,

Yours very truly,

(Sgd.) J. F. H. WYSE.

Gentlemen,—Complying with Mr. Leitch's verbal instructions to report on any other facing switches of the Toronto Railway Co.'s system, referred to in my recommendation of Feb. 22, 1912, and having due regard to all the conditions I recommend that:

A switchman be kept constantly on duty at the Queen and Dufferin Streets switch when same is in use (this being only during the time of the Canadian National Exhibition) and that a slow speed order be rigidly enforced both ways through this subway, and also through the King St. subway. A blue print plan and profile herewith, marked D 12-30, shows the Queen Street grade approaching this switch.

I also recommend that: At Dundas and Lansdowne (plan and profile shown on blue print D 12-31 herewith), a switch similar to the one recommended in my report of Feb. 22nd, 1912, for King and St. Lawrence Streets, be installed, replacing the present switch at the foot of this grade, between the bridge and Lansdowne.

The other facing switches of the system are practically on the level; are necessitated by traffic conditions, and I do not think any changes in them advisable.

Respectfully submitting the above, I am,

Yours very truly,

(Sgd.) J. F. H. WYSE.

Upon the application of the said Company for approval of switches facing down grades on its system, in the presence of Counsel for the applicant, no one appearing for the Municipal Corporation of the City of Toronto, though duly notified on that behalf, and upon reading the reports dated February 23rd, 1912, and April 1st, 1912, made by John F. H. Wyse, the Engineer appointed by the Board to investigate and report on the said switches, and the blue prints filed therewith.

The Board orders that the said reports, and the blue prints filed therewith, be and the same are hereby approved and confirmed.

And the Board further orders that the said Applicant, the Toronto Railway Company shall forthwith comply with all the recommendations and directions contained in the said reports, as illustrated by the said blue prints filed therewith.

(Seal.)

(Sgd.) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1127. (See P. F. 1038).

Application by the Town of Steelton, under sec. 391 of "The Consolidated Municipal Act, 1903" and section 53, clauses (d) and (e) of "The Ontario Rail-

way and Municipal Board Act, 1906," for approval of By-law 204, repealing By-law 155, as to \$18,000 not required to be raised thereunder.

Feb. 12. Application and material filed, considered and approved. Order.

THE ONTARIO RAILWAY AND MUNICIPAL BOARD.

Monday, the Twelfth Day of February, A.D., 1912.

Before James Leitch, Esq., K.C., <i>Chairman.</i> A. B. Ingram, Esq., <i>Vice-Chairman, and</i> H. N. Kittson, Esq., <i>Member.</i>	}	In the matter of the Application of the Town of Steelton, under section 391 of the "Consolidated Municipal Act, 1903," for approval of its By-law No. 204, repealing By-law No. 155 to \$18,000, the whole of the residue not raised or required under the said By-law No. 155.
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Upon the application of the above-named Corporation, and upon reading the Petition, the affidavit of Joseph Robinson, Clerk of the said Town, the certified copy of the said By-law No. 204, and the material filed.

The Board orders that the said By-law No. 204, intituled "By-law No. 204 of the Town of Steelton. A By-law repealing By-law No. 155 as to a proportionate part of the special rate imposed by said By-law," be and the same is hereby approved.

(Sgd.) JAMES LEITCH,

(Seal.)

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1128. (P. F. P. 96).

Application by the Village of Port Colborne, under sec. 16, of "The Consolidated Municipal Act, 1903," for annexation thereto of part of Lake Erie lying south thereof, (287 acres and part of Township of Humberstone lying west of said Village, 155 acres, total 442 acres.

Feb. 12. Petitions and plan filed.

Feb. 15. Counsel heard in support of application.

Feb. 19. Amended Petition and plan filed as directed by Board, considered and approved.

Feb. 19. Appointment issued for hearing 23rd inst., 2.30 p.m.

Feb. 23. Hearing. Annexation decreed.

Feb. 23. Order.

Upon the application of the said Applicants, upon reading the Petition of the Council of the Municipal Corporation of the Village of Port Colborne, and also the Petition of the Residents, owners and occupiers of the territory or area to be annexed, and upon hearing what was alleged by Counsel on behalf of the said Applicants, and on behalf of the Township of Humberstone,

The Board orders and proclaims that the lands and premises in the Township of Humberstone, in the County of Welland, bounded as follows, that is to say:

First: Commencing at the south-east angle of the present village of Port Colborne, being a point where a line running north and south through the centre

of Township lot No. 29 intersects the low water mark of Lake Erie; thence south along the production of the east limit of the Village 1,770 feet more or less; thence west 3,310 feet more or less to a point on the east face of the dock known as the mooring dock west of the Government Elevator; thence in a north-westerly direction along the line of the east face of the said mooring dock, 2,865 feet more or less to an intersection with the low water mark of Lake Erie; thence in an easterly direction following said low water mark, being the present southern boundary of the village, to the place of beginning, containing by admeasurement 120 acres, be the same more or less, exclusive of the Welland Canal entrance channel, Government right-of-way, and public highways.

Second: Commencing at the south-west angle of the present Village of Port Colborne, where the westerly boundary of the Village intersects the low water mark of Lake Erie; thence westerly along said low water mark 575 feet more or less to the centre line of Steele St., thence N. 5° E. along said centre line of Steele St. 195 feet more or less; thence N. 86° 10' W. 153 feet along the south side of lot No. 86 on the west side of Steele St.; thence N. 5° E. 213 feet along the west side of lots Nos. 86, 87, and 88 on the west side of Steele St. to an intersection with the centre line of Sugar Loaf St.; thence N 86° 10' W. along the centre line of Sugar Loaf St. 1,215 feet, more or less to the eastern boundary of lot No. 31; thence northerly along the said eastern boundary of lot No. 31 to the southern boundary of the Grand Trunk Railway right-of-way; thence easterly along the said southern boundary of the Grand Trunk Railway right-of-way to an intersection with the centre line of Steele St., crossing the original road allowance between the First and Second Concessions to the southern limit of lot No. 29 in said Second Concession; thence along said southern limit of lot No. 29 to the south-east angle of said lot No. 29, being the present north-west angle of the Village; thence along the present western boundary of the Village of Port Colborne to the place of beginning, containing by admeasurement 155 acres be the same more or less, exclusive of streets, public squares, and Government right-of-way, be and the same are added and annexed to the Village of Port Colborne in the County of Welland and that the whole shall constitute and form one municipality to be known as the Village of Port Colborne, said addition to come into force and take effect from and after the date hereof.

1. That the lands so added (but not any new buildings or improvements erected or placed thereon) shall remain for one year from the date hereof at the same assessed value as such lands were assessed in the Township of Humberstone for the year 1911, but new buildings erected and improvements made upon any of the lands so added and of said lands which may have been or may be sold after the date hereof shall be assessed by the said village of Port Colborne as other lands and buildings in said Village are assessed under the provisions of the Assessment Act.

2. That the taxes and rates imposed for the year 1911 or any prior year on any of the lands or buildings included in the territory hereby added which have not been collected shall be collected by and belong to the said Township of Humberstone, and all right to collect the same including distress for non-payment or, if necessary, the sale of the lands, or any of them, shall remain in the said Township as though this Order had not been made and all adjustments between the Village of Port Colborne and the Township of Humberstone shall be made as of the First day of January, 1911.

3. That the said Village of Port Colborne may at any time in the year 1911 prior to the passing of a by-law striking the rate of taxation for the said year, assess (subject to the rights of appeal provided by the Assessment Act) the lands

included in the territory hereby added and the owners and occupants thereof for the year 1912, as though the same had been made in the year 1911 and the same shall be assessed (except in the case of new buildings or improvements erected or placed thereon and lands sold as aforesaid) at the same assessed value respectively as they were assessed by the Township of Humberstone for the year 1911 and the assessment so made shall be the assessment on which the taxes in the said territory for 1912 shall be collected.

4. Any by-laws of the Township of Humberstone granting exemption from taxation or fixing assessments within the territory hereby added shall not be affected by this order or the addition hereby directed, and such by-laws shall remain in as full force and effect as if this order had not been made.

(Sgd.) JAMES LEITCH.

(Seal.)

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1129.

Application by the Bell Telephone Company of Canada, under "The Ontario Telephone Act, 1910," for approval of an Agreement with the Town of Clinton.

Feb. 14. Application and material filed.

Feb. 23. Application and material considered and approved. Order.

PROCEDURE FILE 1130.

Application by the Municipal Corporation of the Town of Tillsonburg, under sec. 388b of "The Consolidated Municipal Act, 1903," as amended by 4 Edw. VII., Chap. 22, sec. 11, for approval of By-law 653, increasing from four and one-half to five per cent. the rate of interest on debentures authorized by By-law 641.

Feb. 14. Application and material filed, considered and approved. Order.

Upon the application of the above-named Applicant the Municipal Corporation of the Town of Tillsonburg, upon reading the said application, the affidavit of Charles H. Mabee, Mayor, the affidavit of Alfred E. Raynes, Town Clerk, and the Exhibits therein referred to,

The Board orders that By-law Number 653 of the Municipal Corporation of the Town of Tillsonburg, amending By-law Number 641 of said Corporation, be and the same is hereby approved of under and in pursuance of Section 388, Sub-section B of the Consolidated Municipal Act, 1903, 4 Edward VII., Chapter 22, Section 11, Ontario.

(Sgd.) JAMES LEITCH.

(Seal.)

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1131.

Application by the City of Hamilton, under 6 Edw. VII., c. 34, sec. 21, for approval of Waterworks Extension By-law No. 1224. (\$128,000).

Feb. 16. Application and material filed.

Feb. 17. Application and material considered and approved. Order.

PROCEDURE FILE 1132.

(*Re Act Respecting Town of Lindsay, Bill No. 7, 1912.*)

Feb. 16. Copy of above Bill and Petition therefor received from Clerk of Legislative Assembly under 6 Edw. VII., c. 31, sec. 55, and Rule 61a of the House.

Feb. 28. Hearing pursuant to appointment. Board approves Bill and reports accordingly.

To the Honourable the Legislative Assembly of the Province of Ontario.

The undersigned have had under consideration Bill (No. 7, 1912) intituled "An Act respecting the Town of Lindsay" and the Petition therefor.

The Board has made inquiry into the allegations set out in the Bill and into all other matters which the Board deemed necessary in connection therewith, and beg to report that, in so far as it provides for the consolidation of the floating debt of the said Town, the Board is of the opinion that it is reasonable that such Bill do pass into law.

Dated at Toronto this Twenty-eighth Day of February, A.D., 1912.

(Signed) JAMES LEITCH,
Chairman.

(Signed) A. B. INGHAM,
Vice-Chairman.

(Signed) H. N. KITTSOON,
Commissioner.

PROCEDURE FILE 1133. (P. F. P. 100).

The Honourable the Minister of Public Works of Ontario,

vs.

The Grand Trunk Railway Company of Canada,

(Operating the Magnetewan River Railway).

Application under 6 Edw. VII., c. 30, sec. 92, for approval of Highway Bridge over Railway.

Feb. 17. Application and Plan filed in triplicate. Board appoints March 5th, 1912, at 2.30 p.m., for hearing.

Mar. 5. Hearing arranged for 3.30 p.m., at request of Counsel.

Mar. 5. 3.30 p.m., hearing. Judgment reserved; work on bridge may proceed pending delivery of judgment.

April 1. Judgment allowing application. Cost of bridge to be borne by Applicant.

May 7. Order.

1. Upon the application of the Honourable the Minister of Public Works for the Province of Ontario for leave to construct a bridge and highway over the Magnetewan River Railway operated by the respondent, at a point about 600 feet west-

erly from the railway crossing of Ontario Street in the Town of Burks Falls as shown upon the plan and profile of the said bridge and crossing filed, upon reading the notice of application filed the 17th day of February, 1912, and the said plan attached thereto and filed therewith, and the application coming on to be heard on the 5th day of March last in the presence of counsel for the applicant and the respondent and of the Town Clerk of the Town of Burks Falls, and the Town of Burks Falls undertaking by the said Town Clerk that the town would provide a right of way for the said bridge and highway without cost and would close that part of Ontario Street in the said town, which crosses the present right-of-way of the said Railway, and would convey the same to the said Maganetawan River Railway Company, and upon hearing what was alleged by counsel aforesaid, the Board was pleased to direct that the said application should stand over for judgment and the same coming on this day for judgment.

2. The Board orders that the Department of Public Works of the Province of Ontario shall have leave to construct a bridge and highway across the said the existing Railway of the Maganetawan River Railway Company in accordance with the said plan and profile filed.

3. And the Board further orders that in accordance with the said undertaking the Municipal Corporation of the Town of Burks Falls do furnish and provide the ground and right of way for the said bridge and highway to the said Department without cost or expense, and that that part of Ontario Street in the said town which crosses the right-of-way of the said Railway be duly closed by the said town when the said bridge and highway are completed and ready for traffic, and that the said part be thereupon conveyed to the said Railway Company by the said Municipal Corporation.

4. And the Board does not see fit to make any order for the payment of any part of the construction, maintenance, renewing or repairing of the said bridge and highway by the respondent, or by the said Maganetawan River Railway Company, or as to the costs of this application.

(Sgd.) JAMES LEITCH,

(Seal.)

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1134. (P. F. P. 99).

Application by Kaministiquia Power Company, Ltd., for approval of plan, &c., of new Pole Line on Syndicate Ave., Fort William.

Feb. 18. Application and blue print having been filed and referred to Board's Engineer, his report received and copy dispatched to Applicants.

Mar. 2. Amended blue prints filed for approval and referred to Board's Engineer.

Mar. 12. Engineer's report received; copy sent to Applicants.

Sept. 27. Plans approved and certified.

Toronto, Ont., Feb. 17th, 1912.

Ontario Railway and Municipal Board,
Manning Chambers, Toronto.

GENTLEMEN,—Regarding application of the Kaministiquia Power Company of Feb. 10th, for high tension wires on two blocks of 45 ft. poles, poles to be used also for street railway purposes within the City of Ft. William. Would state the

Company propose, "1st. That grounded guard pins be installed on the inside curve of any angle in the line.

"2nd. That grounded guard wire be installed between outside supports of braces, and under arm, to protect against an arm burning off, and dropping a wire. This can easily be done by grounding to the peak casting."

In addition to the above the Kaministiquia Power Co. should furnish the Board 1st, with an affidavit giving the puncture test, and flash-over test of the insulators they propose to use, and the assurance that the high tension wires for these two blocks shall be 30 per cent greater in cross sections than the wire on either side. They should furnish the Board with triplicate plans and profile showing the locations, distances, clearances, etc., for the Board's approval.

Respectfully submitting the above, I am

Very truly yours,

(Sgd.) J. F. H. WYSE.

PROCEDURE FILE 1135.

Application by The Hamilton Cataract Power Light & Traction Company, Ltd., for approval of Plan, &c., of proposed power transmission line through the County of Wentworth.

Feb. 19. Plan, profile and Book of Reference filed.

April 9. Plan, profile and Book of Reference approved and certified.

PROCEDURE FILE 1136.

Application by the Hamilton Cataract Power Light and Traction Company, Ltd., for approval of plan, etc., of proposed power transmission line through the County of Lincoln.

Feb. 19. Plan, profile and book of reference filed.

April 9. Plan, profile and book of reference approved and certified.

PROCEDURE FILE 1137.

Application by the City of Hamilton for approval of draft Bill for placing underground wires of Dominion & Provincial Electric, 'Phone and Telegraph Companies, &c.

Feb. 20. Draft form of proposed Dominion and Provincial Bills filed for approval.

PROCEDURE FILE 1138.

Re an Act respecting the Floating Debt of the Town of Dundas. Bill No. 5, 1912.

Feb. 20. Copy of above Bill and Petition therefor received from Clerk of Legislative Assembly, under 6 Edw. VII., c. 31, sec. 55, and Rule 61a of the House.

Feb. 28. Further material filed by Municipality, as directed by the Board, considered and approved. Bill reported favourably to the House.

PROCEDURE FILE 1139.

Application by the Village of Tavistock, under 4 Edw. VII., chap. 22, sec. 11 (Ont.) for approval of By-law No. 40, increasing from four per cent to five per cent. the rate of interest on debentures under By-law No. 31. (\$20,000 for water-works).

Feb. 27. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1140. (I. C. \$9,000).

Application by the Town of Tillsonburg, under 8 Edw. VII., chap. 51, for validation of By-law No. 650, and debentures (\$9,000 for completing Hydro-Electric plant and other public purposes).

Feb. 27. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1141.

Application by the Town of Oshawa, under 8 Edw. VII., Chap. 51, for validation of its By-law No. 792, and debentures thereunder, (\$48,131.54 for construction of pavement).

Feb. 27. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1142.

Application by the Town of Oshawa, under 8 Edw. VII., Chap. 51, for validation of its By-law No. 793, and debentures thereunder. (\$4,515.62 for construction of sewers).

Feb. 27. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1143.

Application by the Town of Oshawa, under 8 Edw. VII., Chap. 51, for validation of its By-law No. 795, and debentures thereunder (\$4,338.08 for construction of granolithic sidewalks).

Feb. 27. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1144.

Re Bill No. 11, 1912, An Act to consolidate the Floating Debt of the Town of Arnprior.

Feb. 29. Above Bill and Petition therefor received from Clerk of Legislative Assembly under Rule of the House 61a.

Mar. 7. Hearing pursuant to appointment. Bill approved and reported.

PROCEDURE FILE 1145.

Re Bill No. 16, 1912.

An Act respecting the Town of Arnprior.

Feb. 29. Above Bill and Petition therefor received from Clerk of Legislative Assembly under Rule of the House 61a.

Mar. 14. Hearing pursuant to Appointment. Board decides in favor of Bill. Bill reported to House.

PROCEDURE FILE 1146.

Re Bill No. 47, 1912. An Act respecting the Town of Gravenhurst.

Feb. 29. Above Bill and Petition therefor filed by Clerk of Legislative Assembly.

Mar. 13. Hearing pursuant to appointment. Judgment in favor of Bill. Bill reported.

PROCEDURE FILE 1147.

Re Bill No. 38, 1912. "The Town of Arnprior Debenture Act, 1912."

Mar. 2. Above Bill received for enquiry and report under Rule of the House 61a.

Mar. 7. Hearing pursuant to Appointment. Bill approved and reported.

PROCEDURE FILE 1148.

Application by the Bell Telephone Company of Canada, Limited, under "The Ontario Telephone Act, 1910," for approval of an Agreement with the Town of Lanark.

Mar. 2. Application and material filed.

Mar. 14. Application and material considered and approved. Order.

PROCEDURE FILE 1149.

Re Bill No. 8, 1912. An Act respecting Town of Haileybury.

Mar. 5. Above Bill and Petition therefor filed by Clerk of Legislative Assembly under Rule 61a of House.

Mar. 14. Hearing pursuant to appointment. Board decides to report Bill favorably to the House.

Mar. 14. Report.

PROCEDURE FILE 1150.

Application by Village of Richmond Hill, under 8 Edw. VII., chap. 51, for validation of By-law 237 and debentures. (\$5,000 to supply electric lighting).

Mar. 7. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1151.

Application by the Town of Steelton, under 8 Edw. VII., c. 51, for validation of By-law 209 and debentures (\$21,000 for Granolithic Walks).

Mar. 13. Application and material filed.

Mar. 29. Application and material considered and approved. Order.

PROCEDURE FILE 1152. (I. C. \$6,100.00).

Application by the Town of Steelton, under 8 Edw. VII., c. 51, for validation of By-law No. 210, and debentures. (\$6,100.00 for granolithic walks).

Mar. 13. Application and material filed.

Mar. 29. Application and material considered and approved. Order.

PROCEDURE FILE 1153 (I. C. \$4,900.00).

Application by the Town of Steelton, under 8 Edw. VII., chap. 51, for validation of By-laws Nos. 211, 212 and 213, and debentures (4,900 for granolithic walks).

Mar. 13. Application and material filed.

Mar. 29. Application and material considered and approved. Order.

PROCEDURE FILE 1154.

Application by the City of Peterborough for approval of Waterworks Extension By-law 1651. (\$10,000) under 2 Edw. VII., chap. 59, sec. 3, as amended by 4 Edw. VII. chap. 64, sec. 4.

Mar. 13. Application and material filed, considered and approved. Order.

Upon the application of the said Corporation, and upon reading the Notice of Application filed by E. H. D. Hall, Esquire, Solicitor for the Applicants, the affidavits of Thomas Francis Matthews, Chairman, Albert C. Fawcett, Superintendent, and Simon Robert Armstrong, Secretary, of the Water Commission, the certified copy of the said By-law No. 1651, and the other material filed,

The Board orders under and in pursuance of the provisions of Chapter 59 of the Statutes of the Province of Ontario passed in the second year of the reign of His late Majesty, King Edward VII., as amended by Chapter 64 of the said Statutes passed in the fourth year of the reign of His late Majesty, King Edward VII., that the said By-law No. 1651 of the Municipal Corporation of the City of Peterborough, intituled "By-law Number 1651. A by-law to authorize the borrowing of ten thousand dollars to pay for extensions made in the Waterworks System of the City of Peterborough in the year 1911," be and the same is hereby approved.

(Sgd.) JAMES LEITCH,

(Seal.) Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1155.

Application by the Haldimand Rural Telephone Company, Limited, under 10 Edward VII., chap. 84, sec. 10, for approval of an agreement with Mount Pleasant Telephone Company (not incorporated) and the Fenella Rural Telephone Company Limited.

Mar. 14. Application and Agreement filed.

May 3. Application and Agreement considered and approved. Order.

PROCEDURE FILE 1156.

Re Morrisburg and Ottawa Electric Railway Company.

Mar. 14. Copy of By-law filed changing Head Office from Morewood to Ottawa, (Sec. 6, Ontario Railway Act, 1906).

PROCEDURE FILE 1157.

Application by the City of Woodstock, under 6 Edw. VII., chap. 34, sec. 21, for approval of its By-law No. 568, and debentures (\$596.71 for waterworks extensions).

Mar. 16. Application and material filed, considered and approved. Order.

5 R.M.

PROCEDURE FILE 1158.

Application by the City of Woodstock, under 6 Edw. VII., chap. 34, sec. 21, for approval of its By-law No. 571, and debentures (\$7,400 for extensions to Electric Light and Power Plant).

Mar. 16. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1159.

Re Bill No. 68, 1912. An Act respecting the Town of Gananoque.

Mar. 16. Above Bill and Petition therefor filed by Clerk of Legislative Assembly, under Rule 61*a* of the House.

Mar. 20. Auditor's Reports filed, considered and approved. Bill reported.

PROCEDURE FILE 1160.

Application for annexation to Town of Pembroke, of portion of the Township of Pembroke, under 6 Edw. VII., c. 34, sec. 1.

Mar. 18. Declaration of Expediency of, and Petition for, annexation filed. Board appoints 22nd inst., at 2.30 p.m., for hearing.

Mar. 22. Hearing. Application not granted, being in contravention of sec. 12 of "The Consolidated Municipal Act, 1903."

PROCEDURE FILE 1161.

Re Bill No. 61, 1912. An Act respecting the City of Port Arthur.

Mar. 19. Above Bill referred to Board by Private Bills Committee of Ontario Legislature for report on sections 7 to 14 (both inclusive).

Mar. 20. Hearing pursuant to appointment. Report in favor of said sections of said Bill (citing instances of long term debentures).

THE ONTARIO RAILWAY AND MUNICIPAL BOARD.

To the Honourable the Legislative Assembly of the Province of Ontario.

The undersigned have had under consideration sections 7 to 14, both inclusive, of Bill No. 61, 1912, intituled "An Act respecting the City of Port Arthur."

The Board has made enquiry into the allegations set out in the Bill and into all other matters which the Board deemed necessary in connection therewith, and beg to report that it is reasonable that the said sections of such Bill do pass into law.

With regard to the proposed terms of payment of the debentures the Board would respectfully bring to your notice the following instances of long term debentures, viz.:—

Winnipeg Charter, Manitoba (1902).

Secs. 685 and 686, as to consolidation, authorizes 50 year debentures.

St. Boniface Charter, Manitoba, 7 and 8 Edward VII., Cap. 57, Sec. 530 (c) authorizes debentures for 50 years.

Saskatchewan City Act, Revised Statutes, 1909, Sec. 185 (3), Debentures not to exceed 40 years.

British Columbia Municipal Act, 1912, Sec. 124, Clause 3, 50 years:
Former Act, 1906, Cap. 32; Sec. 68, Clause 2:
50 years.

Dated at Toronto the Twentieth day of March, A.D., 1912.

(Signed) A. B. INGRAM,
Vice-Chairman.

(Seal.)

(Signed) H. M. KITTSON,
Commissioner.

PROCEDURE FILE 1162. (I. C. \$7,880.69).

Application by the Town of Cornwall for validation of consolidating By-law 26, 1912 (and By-laws 13 to 25, both inclusive, consolidated) and the debentures thereunder (\$7,880.69 for Local Improvements).

March 18. Application and material filed, and counsel heard in support of Application. Application granted. Order.

Upon the application of the said Corporation, and upon reading the notice of application, the affidavits of George S. Jarvis, clerk; John A. Chisholm, mayor, and John Graham Harkness, Treasurer, of the said town, the verified copies of the said by-laws and the other material filed,

The Board orders that the said Local Improvement Consolidating Debenture By-law No. 26 for the year 1912 and Individual Local Improvement Debenture By-laws Nos. 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, and 25, for the year 1912 therein referred to. of the Town of Cornwall, be and the same are hereby approved and validated.

And it is ordered pursuant to the provisions of "The Ontario Municipal Securities Act, 1908," that certificates be granted approving of the said by-laws of the Municipal Corporation of the Town of Cornwall, and declaring the same valid and binding, and that their validity is not open to question in any Court on any ground whatever, and that the debentures issued under the authority of and in accordance with the said Local Improvement Consolidating Debenture By-law No. 26 for the year 1912, be also approved of and that the same be certified as provided by the said Act.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1163.

Application by the Town of Sandwich, under 8 Edw. VII., chap. 51, for validation of By-law No. 440, and debentures (\$4,952.82 for construction of sewers on Bedford Street).

March 25. Application and material filed, considered and approved. Order to issue after thirty days from passing of By-law.

April 13. Order.

PROCEDURE FILE 1164.

Application by the Town of Sandwich, under 8 Edw. VII., chap. 51, for validation of By-law No. 441 and debentures (\$9,395.35 for construction of sewer on Askin Avenue.)

March 25. Application and material filed, considered and approved. Order to issue after thirty days from passing of by-law.

April 13. Order.

PROCEDURE FILE 1165.

Application by the Town of Haileybury, under 8 Edw. VII., chap. 51, for validation of its By-law No. 317, and debentures thereunder [\$9,135 to extend Meridian Avenue].

March 26. Application and material filed, considered and approved. Order to issue after April 16th, 1912.

April 17. Order.

PROCEDURE FILE 1166.

Application by the City of Ottawa, under 6 Edw. VII., chap. 34, sec. 21, for approval of By-law No. 3,335 (\$70,000 for Electric Light Improvements).

March 28. Application and material filed and considered. Letter for further proof *re* expected income from extensions.

April 4. Further material filed, considered and approved. Order.

PROCEDURE FILE 1167.

Application by the City of Ottawa, under 6 Edw. VII., chap. 34, sec. 21, for approval of By-law No. 3337 (\$74,000 for waterworks extensions).

March 28. Application and material filed, considered and approved.

April 4. Order.

PROCEDURE FILE 1168.

Application by the Mississippi Telephone Company, Ltd., under "The Ontario Telephone Act, 1910," section 6, for approval of its Telephone Tolls.

March 30. Copy of By-laws containing tariff of tolls received for approval as to tolls, from the Provincial Secretary's Office.

PROCEDURE FILE 1169. (I. C. \$15,109.57.)

Application by the Town of Haileybury, under 8 Edw. VII., chap. 51, for validation of By-law No. 320, and debentures (\$15,109.57 for construction of sewers).

April 12. Application and material filed.

May 13. Application and material considered and approved. Order.

PROCEDURE FILE 1170.

Application by the Bell Telephone Company, under "The Ontario Telephone Act, 1910," for approval of an Agreement with the Town of Palmerston.

April 13. Application and material filed.

May 30. Hearing pursuant to appointment. Judgment reserved.

June 1. Judgment granting application. Order.

Upon the application of the said Company, and the Board, by published notice of the appointment, having appointed Thursday, the Thirtieth day of May, A.D., 1912, to hear all parties interested in the application, and upon hearing what was alleged by all parties appearing on the return of the said appointment, and upon reading the said agreement bearing date the Twenty-sixth day of March, 1912, and the Board having reserved judgment, now orders as follows:

(1) The Board orders that the said agreement, bearing date the Twenty-sixth day of March, 1912, between the Bell Telephone Company of Canada, Limited, of the First Part, and the Corporation of the Town of Palmerston, of the Second Part, be and the same is hereby approved.

(2) And the Board makes no order as to costs, except that the applicant company shall pay \$10.00 for Law Stamps on this order.

(Seal.)

(Signed) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1171.

Application by the Bell Telephone Company, under "The Ontario Telephone Act, 1910," for approval of an Agreement with the City of St. Thomas.

April 13. Application and material filed.

May 30. Hearing pursuant to appointment. Judgment reserved.

June 1. Judgment granting application. Order.

PROCEDURE FILE 1172. (I. C. \$15,886.)

Application by the Municipal Corporation of the City of Niagara Falls, for validation, under 8 Edw. VII., Chap. 51, of By-laws 473 and 494 and the By-laws therein referred to and the debentures thereunder (\$15,886 for concrete walks).

April 13. Application and material filed.

April 17. Further material filed as directed, considered and approved. Order.

PROCEDURE FILE 1173. (I. C. \$8,574.28.)

Application by the Municipal Corporation of the City of Niagara Falls, for validation, under 8 Edw. VII., Chap. 51, of By-laws 484 and 495, and the By-laws therein referred to and debentures thereunder (\$8,574.28 for lateral sewers).

April 13. Application and material filed.

April 17. Further material filed as directed, considered and approved. Order.

PROCEDURE FILE 1174. (I. C. \$1,000.)

Application by the Township of Keppell, under 8 Edw. VII., Chap. 51, for validation of By-law No. 7, 1911, and debentures thereunder (\$1,000 for school-house).

April 13. Application and material filed, considered and approved.

April 15. Order.

PROCEDURE FILE 1175.

Application by the Bell Telephone Company, under 10 Edw. VII., Chap. 84, for approval of an Agreement with the City of Ottawa.

April 16. Application and material filed.

May 30. Hearing pursuant to appointment. Judgment reserved.

June 1. Judgment granting application. Order.

PROCEDURE FILE 1176.

Application by the Village of Waterdown, for approval, under 6 Edw. VII., c. 34, sec. 21, of Electric Light Extension By-law 191 (\$1,500).

April 16. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1177.

Application by H. H. Kirk, *et al.*, under 6 Edw. VII., c. 34, sec. 1, for annexation to North Toronto of Part of Township of York (part of Plan M.87).

April 17. Petition and resolution of expediency by Town Council filed. Hearing pursuant to appointment. Annexation decreed. Order.

Upon the application of the said applicants made on the Seventeenth day of April, 1912, and upon reading the resolution of the Council of the Corporation of North Toronto passed on the Sixteenth day of March, 1912, the resolution of the Township of York passed on the Twenty-fifth day of March, 1912, and the petition of the said applicants, upon hearing what was alleged by counsel on behalf of the applicants, H. H. Kirk, F. C. Davies, Richard L. Baker, J. Wood, W. J. Keens, W. A. Roberts, Maurice Grimbly, Walter James, Arthur H. Bryden, J. Harry Dodgson, E. J. Powell, Harold Wilson, E. J. Wilson, R. F. Angus, W. F. Foster, Donald McKinnon, A. B. Pinistone, Annie Morison, Jean A. Cresswell, F. E. Braine, D. D. Schiller, A. M. Shouldice, Mrs. W. H. Allison, Leo E. Charles, Belva S. Shannon, F. J. Purkis, Alice Willson, H. H. Goode, Frank L. Woodley, Frances White, Jean Elder, Katharine Elder, James McLachlan, B. Watford, and D. R. Feetham, being the majority of the registered owners of the said lands sought to be annexed from the Township of York to the Town of North Toronto.

The Board orders and proclaims that the lands and premises in the Township of York mentioned in the said Petition and being described as follows:

Commencing at a point in the north limit of lot number Four in the first concession west of Yonge Street, and being also the northerly limit of plan filed in the office of Land Titles at Toronto as Plan Number M. 87 at the westerly limit of the Town of North Toronto; then in a south-easterly direction following the westerly limit of the said town to the southerly limit of said plan M. 87, thence

westerly along said southerly limit of said plan M. 87 to the westerly limit of lot number 46 according to said plan; thence northerly along the westerly limits of lot 46, across Glencairn Avenue, lots 61, 60, across Glengrove Avenue, lots 238 and 239, across Glenview Avenue, and lot 252 to the northerly limit of said plan M. 87, thence easterly along said northerly limit of said plan to the place of beginning, be and the same are hereby annexed to the Town of North Toronto upon and subject to the following terms and conditions, namely:—

1. The said lands shall be added to Eglinton Ward West in the Town of North Toronto as of 1st January, 1912.

2. That the taxes and rates for the year 1911 or any prior year on any of the lands included in the territory hereby annexed, which shall not have been collected before January 1st, 1912, shall be collected by and belong to the Township of York and all right to collect the same, including distress for non-payment, or, if necessary, the sale of the said lands or any of them shall remain in the said township as though this order had not been made, and all adjustments between the Town of North Toronto and the Township of York shall be made as of the First day of January, 1912.

3. The said Town of North Toronto may at any time in the year 1912 prior to the passing of the By-law striking the rate of taxation for the said year assess (subject to the rights of appeal provided by the Assessment Act) the lands included in the territory hereby annexed, and the owners and occupiers thereof for the year 1912 and the assessment so made, if made, or the regular assessment, if any such assessment is made, shall be the assessment on which taxes in the said territory for the year 1912 shall be calculated.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1178.

Application by the Village of Elora, under sec. 16 of "The Consolidated Municipal Act, 1903," by the annexation of part of the Township of Nichol (90,114 acres).

April 20. Application and material filed.

April 27. Appointment issued for reading at Elora on 16th May, 1912.

May 20. Order issued.

Determination of the Board.

Mr. Kerwin, on behalf of the Corporation, said everything that could be said, and said it well, in support of the proposed annexation of the territory described in the application to the village of Elora.

The Board have had a view and are familiar with Elora and its surroundings. The village has suffered the fate of many other places in Ontario. The trade of the village has been diverted to other points by reason of the construction of the railways. It is a very beautiful village. Its natural features are amongst the most picturesque in Canada. It is largely residential. Neither the commercial nor industrial interests of the village require the addition of any further territory. The people, with few exceptions, in the area proposed to be annexed, are strongly opposed to annexation. They would derive no benefit from annexation, and their

taxes would be increased from 8 mills to 24. The benefit to be derived by the people in the area it is proposed to annex is always an important consideration.

The Board are empowered to annex to the village any part of the adjacent locality, which, from the proximity of the streets, or the buildings, or the probable future exigencies of the village, it seems desirable to add.

The Board does not think that the applicants have brought themselves within the purview of the Statute. There is nothing that we can see in the location of the buildings or streets of the village, or in the probable future exigencies of the village that renders it necessary that more territory should be added to this village. There is now more territory included in the present area of the village than is necessary for any purpose that we can surmise.

The Board declines to make the order asked for. We dismiss this application but make no order for costs, except that the Corporation of Elora shall pay \$20 for stamps for the formal order.

Dated at Toronto this Twentieth day of May, 1912.

(Signed JAMES LEITCH,
Chairman.

Upon the application of the said Corporation of the Village of Elora, made on the 16th day of May, A.D., 1912, upon hearing the evidence adduced in support of the said application and what was alleged by counsel on behalf of the said applicants in presence of counsel for the Township of Nichol and Trustees of Union School Section No. 5, and for certain of the ratepayers objecting to the said application and upon hearing what was alleged: and the Board having viewed the part asked to be annexed to the said village, as well as the village itself:

1. The Board dismisses the said application.
2. The Board does not see fit to make any Order as to costs, except that the said applicants shall pay \$20.00 in stamps on this order.

(Seal.)

(Signed) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1179. (I. C. \$12,000.)

Application by the Township of Chapleau, under S Edw. VII., Chap. 51, for validation of By-law No. 24, and debentures (\$12,000 for Public Hall).

April 20. Application and material filed.

April 27. Application and material considered and approved. Order.

PROCEDURE FILE 1180. (I. C. \$7,000.)

Application by the Township of Chapleau, under S Edw. VII., Chap. 51, for validation of By-law 26, and debentures (\$7,000 for waterworks improvements).

April 20. Application and material filed.

April 27. Application and material considered and approved. Order.

PROCEDURE FILE 1181.

Application by the Berlin Board of Park Management, under ss. 6, sec. 13 of "The Public Parks Act, 1912," for approval of By-law No. 11 (to set aside certain portion of Victoria Park for athletic sports, etc.)

April 26. Application and copy of By-law filed.

April 27. Board appoints Tuesday, May 14th, at 2 p.m., Town Hall, Berlin, for hearing.

May 14. Hearing, judgment reserved.

May 20. Judgment issued refusing approval of By-law.

Determination of the Board.

We have heard everything that can be said for and against the approval of this By-law, and have had the advantage of a view.

The opposition to the approval is so pronounced, and the objections are so serious, that the Board feel that we should decline, as we do, to approve this By-law.

The enterprise connected with the By-law involves the raising of a large amount of money by debentures, the expenditure of which it is clear is not intended for purely park purposes, but for what in reality is of a speculative and commercial character. We express no opinion as to the merits of the enterprise or as to its probable success. The electors must be the judges of all that. We think the By-law to raise the money by debentures, with estimates of the cost, and a statement of the purposes of the proposed scheme, should be submitted to the electors, who have the right by law to vote on such by-laws. If such electors endorse the raising of the money and the scheme and purposes of its expenditure, the Board will, if applied to, consider the approval of a By-law to set aside a portion of the park for the proposed purposes.

The Board makes no order as to costs except that the Corporation of Berlin shall pay \$20 for a stamp on the formal order.

Dated at Toronto the Twentieth Day of May, 1912.

(Seal.)

(Signed) JAMES LEITCH,
Chairman.

PROCEDURE FILE 1182.

Toronto

vs.

Toronto Suburban Railway Co.

(For reconstruction and repair of tracks, etc., on Bathurst Street and Davenport Road.)

April 26. Application filed.

June 17. Appointment for hearing 25th inst., 2.30 p.m.

June 24. Board's engineer's report filed.

June 25. Hearing pursuant to appointment. Judgment for repair and reconstruction by both parties under supervision of Board's engineer.

Sept. 24. Order settled and issued.

June 24th, 1912.

The Chairman of The Ontario Railway and Municipal Board, Toronto.

SIR,—According to your instructions I went out to the junction of the Davenport Road line on Keele Street and walked along the whole line to its terminus on Bathurst Street. The engineer of the railway company, Mr. Wilkie, accompanied me, and I understood from him that his company were going to put in a new track all the way, but were waiting on the city authorities to put the roadway in order while the new track was being laid.

The present track is laid with 60 lb. Tee rails which have been down for a number of years, probably as long as the road has been built. These rails as a whole are in better condition than I expected to see them, but stand up in many places considerably above the roadway, especially at the curves to the car barns on St. Clair Ave., at Ford Street and St. Clair Ave., Ford Street and Davenport Road, and at the other curves along the line. The track appears to have little or no ballast under the ties, judging from what I saw at a place where the company's men were putting in new ties on Davenport Road. The ties I saw were in fair condition, but too far apart—about 3 feet; these men were putting in new ones between the old to make the spacing closer, and, I understand, were doing so in quite a number of places along the line. The surface of the road between the rails is very low in many places, practically to the foot of the rails or 4 inches, and in wet weather must have been full of holes. This, of course, makes it extremely hard on vehicles using the centre of the street.

I might add that at the C. P. R. track crossings the company has diamond crossings of 80 lb. rail, and these are in good condition, but that one at the Davenport station on the G. T. R. is in a very poor state and badly worn. However, Mr. Wilkie informed me they intended to put a new one in when the track was relaid, as they were going to change the gauge from 4 ft. 10¾ in. to standard gauge 4 ft. 8½ in. All these diamonds of course would have to be renewed for a change of gauge.

Regarding the streets outside of the tracks and beyond where the track is, they are thick with dust and in very poor repair from Keele Street as far as the intersection of Delaware Ave. with Davenport Road, but east of this it is in a somewhat better state. The surface up to this point is very irregular and evidently has been full of deep holes or depressions during the wet weather. I did not notice much in the shape of macadam, and should think there was very little, if any, along the whole way. There has also been a pipe laid along Davenport Road to Bathurst Street on the south side of the track, running under the turnout near the Auxiliary Power Station, and this I understand had to be taken up while the sewer was being put in, and has only been recently replaced. The whole surface of the street here is very rough and irregular.

East of the crossing of the Northern Division of the G. T. R. near Davenport Station the roadway on the north side is considerably higher than the track, I should think about nine inches or a foot, from the crossing to the top of the grade for at least 300 feet, giving the road surface a bow shape in contrast to the grade of the track.

Judging from the state of the roadway and the track I am of opinion that if anything of a good job is to be made of these streets or the track, it is up to both the company and the city authorities to act in the matter, for I fail to see that if

one party sets their portion right and the other does not, how it is possible to very much improve existing conditions. For instance, if the company were to relay their tracks and were to even pave between the rails and 18 inches on the outside, the rest of the street would still be as bad as ever in wet weather, and the same condition would likewise apply to anything the city might do towards the repair of the streets. I am, therefore, of opinion that both parties should each do their part to properly repair that portion of each street that comes under their jurisdiction.

Yours truly,

H. W. MIDDLEMIST.

Upon the application of the above named applicant, and upon hearing counsel for the applicant and respondent,

The Board orders and directs the respondent to put in a proper and sufficient state of repair its tracks and substructures on Bathurst Street and Davenport Road in the City of Toronto, and to dig out and pave that part of the roadway used for railway purposes and eighteen inches on either side thereof.

And the Board orders and directs the applicant to pave the remaining portion of the parts in question herein of Bathurst Street and Davenport Road.

And the Board orders and directs that the applicant and respondent shall work together under the supervision and direction of the Board's Engineer in carrying out the terms of this order, and that in case of difference between the applicant and respondent as to the kind of pavement to be put down, the matter shall be determined by the Board's Engineer.

(Seal)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1183. (P. F. P. 104.).

Application by the Toronto Suburban Railway Company under Sec. 209 of "The Ontario Railway Act, 1906," for approval of fender pilot for use on new double truck cars on Western Division.

April 29. Application filed.

May 29. Plans, etc., of fender filed.

Sept. 21. Engineer's report and drawings of pilot fender filed and approved.

GENTLEMEN,—Complying with your instructions of May 29th, to pass on a pilot, for the Toronto and suburban cars, I beg to report that the tracing of pilot represented by the company to your Board in May did not appear to be satisfactory, and I asked the company to build one of steel, more on the lines of the one as built by the Toronto and York Radial Co. (approved by you Sept. 18th, 1906). This they have done, and operated for some time on Car No. 21, of which I hand you herewith a photograph and tracing with two blue-prints giving details of construction of this pilot, which I have tested, and recommend for your approval for adoption on the Company's suburban cars.

Yours very truly,

(Signed) J. F. H. WYSE.

PROCEDURE FILE 1184.

Application by The Colonial Realty and Securities Corporation, Ltd., under 6 Edw. VII., c. 34, sec. 1, for annexation to Toronto of Part Township of York (34.5 acres, part Township Lot 12, Con. II., from the Bay).

May 2. Application filed. 17th inst. appointed for hearing.

May 17. Hearing, consent draft order filed by counsel for applicants and City of Toronto. Order in terms of consent order, decreeing annexation.

Upon the application of the above named applicants, and upon reading the resolution of the Council of the Corporation of the City of Toronto, passed on the 29th day of April, 1912; the petition of the said applicants; the affidavit of for the applicants; and copy of plan of lands proposed to be annexed being produced; and upon hearing what was alleged by counsel on behalf of the applicants, the Corporation of the City of Toronto, and the Corporation of the Township of York.

The Board orders and proclaims that the lands and premises in the Township of York mentioned in the said petition and being described as all and singular that certain parcel or tract of land and premises situate, lying and being in the County of York and Province of Ontario; being composed of part of Township Lot Number Twelve, in the Second Concession from the Bay in the Township of York, which said parcel may be more particularly known and described as follows: Commencing at the intersection of the southerly limit of said lot with the easterly limit of the Don Mills Road; thence easterly along said southerly limit of said Lot 2659 feet more or less to the westerly limit of Registered Plan No. 1069 (County); thence northerly along the westerly limits of Registered Plans Numbers 1069 and 825 (County) 658 feet more or less to the line between the northerly and southerly halves of said Lot Number Twelve: said line being the southerly limit of the lands of one Robert Davies entered in the office of Land Titles at Toronto as Parcel No. 352 in the Register for the East Section of the Township of York; thence westerly along said southerly limit of the lands of Robert Davies, 2320 feet more or less to the easterly limit of the Don Mills Road aforesaid; thence southerly along last mentioned limit 736 feet more or less to the place of beginning, containing by admeasurement 37.5 acres, be the same more or less, be and the same are hereby annexed to the City of Toronto; the said annexation to take effect on the First Day of June, A.D., 1912, on and subject to the following terms and conditions, namely:—

(1) The said lands shall be added to Ward No. 1.

(2) That the taxes and rates imposed for the year 1911, or any prior year, upon any of the lands included in the territory hereby annexed, which shall not have been collected before the First day of June, 1912, shall be collected by and belong to the Township of York, and all right to collect the same, including distress for non-payment or, if necessary, the sale of the said lands, or any of them, shall remain in the said township as though this order had not been made; and an adjustment between the City of Toronto and the Township of York shall be made as of the First day of June, 1912.

(3) The said Township of York shall be entitled to levy and collect five-twelfths of the rates and taxes imposed upon any of the said lands under the assessment made by the said township for the year 1912, and shall be entitled to retain for its own use and benefit the proceeds thereof; and the Corporation of the

City of Toronto shall be entitled to levy and collect upon all of the said lands seven-twelfths of the amount to be derived from a levy of a rate of 18½ mills on the dollar of the assessment fixed upon the said lands by the said Township of York, and for the purposes of the levying and collecting of the said amount, shall adopt as the basis thereof the assessment made by the said township for the year 1912.

(Seal.)

(Signed) JAMES LEITCH,
Chairman.

PROCEDURE FILE 1185. (I. C. \$4,000.)

Application by United Townships of Neelon and Garson, for validation, under 8 Edw. VII., c. 51, of By-law 59 and debentures (\$4,000 for roads).

May 3. Application and material filed.

May 4. Application and material considered and approved. Order.

PROCEDURE FILE 1186.

Application by the Town of Owen Sound, under sec. 420 of "The Consolidated Municipal Act, 1903," for approval of Sinking Fund Investment By-law 1548 (\$20,000 debentures under By-law 1519, for loan to John H. Cole, Manufacturer, to be purchased out of Sinking Funds available).

May 9. Application and material filed and considered—letter for explanation and further material.

May 15. Further material filed.

May 17. Further material considered and approved. Order.

PROCEDURE FILE 1187, (I.C. \$6,000).

Application by the Town of Mattawa, under 8 Edw. VII., chap. 51, for validation of its By-law No. 190, and debentures thereunder (\$6,000 for cement walks).

May 10. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1188.

Application by The Monarch Realty and Securities Corporation, Limited, under "The City and Suburbs Plans Act," for approval of Plan of Subdivision of Parts of Lots 8 and 9 in the First Concession of the Township of York.

May 10. Application filed.

May 23. Consent of City filed.

May 27. Plan approved and certified.

PROCEDURE FILE 1189.

Application by the City of Ottawa, under sec. 388c of the Municipal Act, for approval of its Bridge Construction By-law authorizing the issue of debentures to the amount of \$8,500 to construct bridge across Preston Street in the said city, as ordered by the Dominion Railway Commission.

May 10. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1190.

Application by R. N. Irvine and others, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of parts Lots 38, 39, 40, 41, 42 and 43, Plan 141.

May 11. Application and consent of city filed. Plan approved and certified.

PROCEDURE FILE 1191. (I. C. \$2,000.)

Application by the Municipality of St. Joseph, under 8 Edw. VII., chap. 51, for validation of By-law 391 and debentures (\$2,000 for street improvements).

May 13. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1192.

Application by the Township of Tisdale, under 8 Edw. VII., chap. 51, for validation of its By-law No. 21. and debentures thereunder. (\$40,000 for public school, etc.)

May 15. Application and material filed, considered and approved.

June 4. Order.

PROCEDURE FILE 1193.

Application by the Town of Wiarton, under 6 Edw. VII., chap. 34, sec. 1, to annex part of the Township of Keppel.

May 14. Petition and declaration of expediency filed.

June 5. Hearing pursuant to appointment. Application dismissed. Order.

PROCEDURE FILE 1194.

Application by Nina A. DePencier and Florence M. Eaton, under "The City and Suburbs Plans Act," for approval of plan of subdivision of part Block "D," Plan 1282, Toronto.

May 15. Application and consent of City of Toronto filed. Plan approved and certified.

PROCEDURE FILE 1195. (I. C. \$4,000.)

Application by the Village of Beaverton, under 8 Edw. VII., chap. 51, for validation of its By-law No. 100, and debentures thereunder (\$4,000 for erection of town hall).

May 17. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1196.

Application by the Village of Tavistock, under 8 Edw. VII., chap. 51, for validation of its By-law No. 12, and debentures (\$40,000 for construction of water-works system).

May 17. Application and material filed.

May 28. Application and material considered and approved. Order.

PROCEDURE FILE 1197.

Application by Kensington Gardens, Limited, and Kensington Annex, Limited. Owners for approval, under "The City and Suburbs Plans Act" of Plan or part Lot 15, Con. 1, West of Yonge Street, Township of York.

May 17. Application filed.

June 5. Plan approved and certified.

June 11. Objections filed by City of Toronto.

PROCEDURE FILE 1198.

Application by Suydam Realty Company, Ltd., and others, under 6 Edw. VII., chap. 34, sec. 1, for annexation to Toronto of part Lot 24, Con. III from bay, Township of York.

May 17. Petition and copy of resolution of Toronto City Council, declaring expediency of the annexation, filed.

Appointment for hearing 3 p.m., Wednesday, June 5th, 1912, at Board's Chambers.

June 5. Hearing pursuant to appointment—Application granted. Order.

Upon the application of the above-named applicants; and upon reading the resolution of the Council of the Corporation of the City of Toronto, passed on the 13th day of May, 1912; the petition of the said applicants; the affidavit of Charles Taylor Pearce for the applicants; and copy of plan of lands proposed to be annexed being produced: and upon hearing what was alleged by Council on behalf of the applicants, the Corporation of the City of Toronto, and the Corporation of the Township of York,

The Board orders and proclaims that the lands and premises in the Township of York mentioned in the said petition and being described as all and singular that certain parcel or tract of land and premises situate, lying and being in the Township of York, in the County of York, and Province of Ontario: being composed of part of Township Lot No. 24 in the Third Concession from the bay in the said township, which may be more particularly described as follows: commencing at a point in the westerly limit of the City of Toronto as defined by the Order of the Ontario Railway and Municipal Board, dated the fifteenth day of December, 1908; said point being the north-easterly angle of Lot No. 13 according to plan filed in the office of Land Titles at Toronto as No. M-298; thence southerly along said westerly limit of said city 1,146 feet more or less to the northerly limit of the city as defined by the Order of the Ontario Railway and Municipal Board dated the first day of February, 1909; thence westerly, southerly and westerly along the limit so defined to the south-westerly angle of Lot No. 11 as shown on plan filed in the Registry Office for the County of York as No. 911; thence northerly parallel to the westerly limit of Spadina Road 1,189 feet, more or less, to the north-westerly angle of Lot No. 4, as shown on plan filed in the Registry Office for the County of York as No. 711; thence easterly along the northerly limit of said lot to the north-easterly angle thereof; thence still easterly across Spadina Road to the north-westerly angle of Lot No. 1, as shown on said Plan M-298; thence easterly along the northerly limits of the lots on the north side of Montclair Avenue as shown on said Plan M-298 to the place of beginning, be and the same are hereby annexed to the City of Toronto; the said annexation to take effect on the First day of July, A.D., 1912, on and subject to the following terms and conditions, namely,—

(1) The said lands shall be added to Ward No. 4 of the City of Toronto.

(2) That the taxes and rates imposed for the year 1911, or any prior year, upon any of the lands included in the territory hereby annexed, which shall not have been collected before the First day of July, 1912, shall be collected by and belong to the Township of York, and all right to collect the same including distress for non-payment or, if, necessary, the sale of the said lands, or any of them, shall remain in the said township as though this Order had not been made; and an adjustment between the City of Toronto and the Township of York shall be made as of the First day of July, 1912.

(3) The said Township of York shall be entitled to levy and collect one-half of the general rates and taxes imposed upon any of the said lands under the assessment made by the said township for the year 1912, and all local improvement rates levied against said lands, or any of them, for the year 1912, in pursuance of local improvement by-laws heretofore passed by Council or Corporation of the Township of York, and shall be entitled to retain for its own use and benefit the proceeds thereof; and for the year 1912, the Corporation of the City of Toronto shall be entitled to levy and collect upon all of the said lands one-half of the amount to be derived from a levy of a rate of 18½ mills on the dollar of the assessment fixed upon the said lands by the said Township of York, and for the purposes of the levying and collecting of the said amount, shall adopt as the basis thereof the assessment made by the said township for the year 1912.

(Seal.)

(Signed) JAMES LEITCH,
Chairman.

PROCEDURE FILE 1199. (P. F. P. 101.)

Application by the City of Toronto, under 6 Edw. VII., Chap. 34, sec. 21, and 10 Edw. VII., Chap. 81, for approval of Street Railway Extension By-law, 5993 (Line on Danforth Avenue from Broadview Avenue to point 200 feet east of Greenwood Avenue).

May. 17. Application and plan, etc., filed.

May 20. Application and plan considered and approved.

Order. Plans certified.

Upon the application of the above named Corporation, and upon reading the Notice of Application filed by William Johnston, Esquire, Solicitor for the applicant, a statement of the estimated cost of construction and equipment of the said railway, a certified copy of the said By-law, and the other material filed,

The Board orders that the said By-law No. 5993, intituled "No. 5993. A By-law to authorize the construction of a double street car line on Danforth Avenue, from Broadview Avenue to a point 200 feet east of Greenwood Avenue," be and the same is hereby approved.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1200. (P. F. P. 102.)

Application by City of Toronto, under 6 Edw. VII., c. 34, sec. 21, for approval of Street Railway Extension By-law 5991, (line on Danforth Avenue from 200 feet east of Greenwood Avenue to east city limits).

May. 17. Application and plan, etc., filed.

May 20. Application and plan considered and approved. Order. Plan certified.

PROCEDURE FILE 1201.

Application by the Village of Port Stanley, under 6 Edw. VII., chap. 34, sec. 21, for approval of its By-law No. 345. (\$6,200 for extension to electric light plant.)

May 18. Application and material filed.

May 20. Application and material considered and approved.

Order.

PROCEDURE FILE 1202.

Application by Gough & Sellers Investments, Limited, under "The City and Suburbs Plans Act," for approval of plan of subdivision of part Lots 6 and 7, Con. 1 from the Bay, Township of York, in the City of Toronto.

May 18. Application and consent by City of Toronto filed. Plan approved and certified.

PROCEDURE FILE 1203.

Application by Toronto City Estates, Limited, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of parts Lots 3, 4 and 5, in the Second Concession from the Bay, in the Township of York.

May 18. Application filed.

June 17. Objection filed by City of Toronto. Appointment for Hearing.

June 27. Hearing. Corners to be rounded and street opened. New Plan to be filed making these alterations and City will consent, and then certificates will issue.

Aug. 8. Consent of City filed.

Aug. 13. Plan approved and certified.

PROCEDURE FILE 1204.

Application by Toronto Suburbs, Limited, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part of the West part of Lot 6, and the East part of Lot 5, First Concession East of Yonge Street, in the Town of North Toronto.

May 18. Application filed.

June 11. Objections filed by City of Toronto.

June 13. Appointment for Hearing.

June 27. Hearing adjourned 'sine die.'

PROCEDURE FILE 1205.

Application by City Estates of Canada, Limited, under "The City & Suburbs Plans Act," for approval of Plan of subdivision of parts Lots 11 and 12, in the Third Concession West of Yonge Street, in the Township of York.

May 18. Application filed.

July 30. Consent of City of Toronto filed. (Plan produced with consent of Township thereon). Plan approved and certified.

PROCEDURE FILE 1206.

Application by City Estates of Canada, Limited, under "The City & Suburbs Plans Act," for approval of Plan of subdivision of Block "H" and part of Blocks "L," "M," "O," "J" and "K" of registered Plan M. 153, being part of Lot 11, in the Third Concession from the Bay, in the Township of York.

May 21. Application filed.

June 11. Objection filed by City of Toronto.

June 13. Appointment for Hearing.

June 27. Hearing. Plan approved and certified on Consent of Counsel of City of Toronto.

PROCEDURE FILE 1207.

Application by Chas. Miller, under "The City & Suburbs Plans Act," of Plan of subdivision of part of Lot 2, Con. 1, from the Bay, in the City of Toronto, and extending Bertmount Avenue from its present south end southerly to Queen Street East.

May 21. Application and Consent of City filed.

May 22. Plan approved and certified.

PROCEDURE FILE 1208.

Application by the Municipal Corporation of the Town of Brockville, under 8 Edw. VII, Chap. 51, for validation of By-law No. 822, and the debentures thereunder. (\$9,542.74—consolidation local improvement issues).

May 22. Application and material filed.

June 13. Additional material and amending By-law filed as directed, and considered and approved. Order.

PROCEDURE FILE 1209. (P. F. P. 103).

Application by The Northern Pyrites Company, Ltd., under 6 Edw. VII, Chap. 30, sec. 59, for approval of Plan, Profile and Book of Reference of proposed new aerial tramway from their Mine to the main line of the G.T.P. Railway.

May 22. Application, Plans, etc., filed and referred to Engineer.

May 27. Approval recommended by Engineer, Plans, etc., approved and certified.

PROCEDURE FILE 1210.

Application by Crown Realty Limited, under "The City & Suburbs Plans Act," for approval of Plan of subdivision of part Lot 3, First Concession, from the Bay, Township of York, now in the City of Toronto.

May 23. Application and Consent of City filed.

May 27. Plan approved and certified.

PROCEDURE FILE 1211.

Application by Francis C. Powell, under "The City & Suburbs Plans Act," for approval of Plan of subdivision of part of Block "K," Plan M. 9, filed in the Office of Land Titles for Ottawa.

May 23. Application filed.

June 6. Consent of City of Ottawa to approval of Plan filed.

June 10. Plan approved and certified.

PROCEDURE FILE 1212.

Application by the Town of Brampton, under 6 Edw. VII, chap. 34, sec. 21, for approval of its By-law No. 432 (\$30,000 for waterworks extension).

May 23. Application and material filed.

May 27. Application and material considered and approved. Order.

PROCEDURE FILE 1213.

Application by The International Transit Company, under 6 Edw. VII, chap. 30, sec. 153, for approval of By-law re smoking, etc., on Cars.

May 27. Application and By-law filed.

May 31. Application and By-law considered and approved. Order.

Upon the application of the International Transit Company, and upon reading the certified copy of the said By-law hereto annexed,

The Board orders that the By-law of The International Transit Company, passed the 10th day of April, 1912, intituled "By-law re Smoking and Spitting," a copy of which By-law is hereto annexed, be and the same is hereby approved and sanctioned.

(Seal)

(Signed) JAMES LEITCH,

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1214.

Application by The Norfolk County Telephone Company, Limited, for increase of certain of its Tariff charges.

May 27. Application and material filed. Appointment for Hearing 10th June, 2.30 p.m., Board's Chambers.

June 10. Hearing—Judgment reserved.

Sept. 3. Experts' Report to Board filed.

Sept. 6. Judgment dismissing application. Order.

I beg to inform you that, in accordance with your instructions, I have made an investigation in the above matter and submit herewith my report, as follows:

MEETINGS OF SUBSCRIBERS.

On July 5th and 15th I attended meetings at Simcoe and Delhi respectively; which were called at the instance of subscribers and stockholders of the Company who are opposing the granting of the Order applied for. A list of those present at these meetings, together with a synopsis of the proceedings at Delhi, is attached hereto. A full report of the proceedings at Simcoe has already been submitted and placed on file.

It will be seen from the reports of these meetings that much dissatisfaction exists on the part of the subscribers in regard to the service furnished by the Company, and while, at Simcoe, some of this dissatisfaction may be due to the inefficient attention of the operators at the Bell Telephone Company's exchange, it is apparent from the statements of the various speakers that the Norfolk County Company's lines are not maintained as effectively as they should be.

The opposition of the Norfolk County subscribers, whose lines terminate at Simcoe, is intensified because of the fact that since the Norfolk County Company

sold out its local exchange in that town to the Bell Company, they have been charged \$15 a year for rural service, whereas the rural subscribers in other parts of the Norfolk County Company's territory are only paying \$12 per annum.

As the reports of these meetings can be referred to, it is unnecessary for me to comment further upon them.

PETITIONS AND LETTERS FROM SUBSCRIBERS.

While at Simcoe a number of petitions and letters protesting against the granting of the Company's application were handed to me by Mr. S. L. King, who represented the subscribers in the Township of Woodhouse at the Board's session on June 10th last, and these have since been supplemented by additional ones received by mail.

These petitions and letters have been placed on file, and an analysis of them is as follows:

Letters stating that subscribers will discontinue service if charges are increased, 6
Letters protesting against increased charges, 8.

Petitions stating that service will be discontinued if charges are increased:

From Simcoe	9 signatures.
Simcoe	7 "
Marburg	9 "
Lynnville	11 "
Vanessa	32 "
Total	68 "

Petitions protesting against increased charges:

From Port Dover	15 signatures.	
Charlotteville	10 "	
Woodhouse	20 "	
Bloodsburg	10 "	
Lynnville	11 "	
Vanessa	18 "	
Vanessa	21 "	(Stockholders)

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Probable Effect of Increased Charges.

If the Company's application were granted. I compute that net increase of revenue would be:—

Simcoe, \$1 per subscriber on 294 telephones	\$294 00
Waterford, Port Dover, Delhi, Scotland, \$1 per subscriber on 100 telephones	100 00
	\$394 00
Waterford \$3.00 per subscriber on 305 telephones	\$915 00
Teeterville \$2.00 per subscriber on 110 telephones	220 00
Delhi \$2.00 per subscriber on 103 telephones	206 00
Scotland \$2.00 per subscriber on 75 telephones	152 00
Otterville \$3.00 per subscriber on 20 telephones	60 00
	\$1,553 00
Gain to Company.	
394 telephones at \$1.00	\$394 00
289 telephones at \$2.00	578 00
325 telephones at \$3.00	975 00
	\$1,947 00

In order to enjoy the full benefit of this gain the Company would have to maintain its list of subscribers as it exists at this date, which, in view of the protests made, it is very doubtful if this would be possible. At Simcoe, for instance, 42 subscribers have signified their intention of relinquishing the service if the charges are increased. This would mean a loss of \$630.00 revenue against an increase of \$294.00.

The withdrawal of 155 subscribers would wipe out the total estimated increased revenue which would result from the granting of the Company's application.

In view of the temper and dissatisfaction which exists at this time among a large number of subscribers and stockholders in the event of the rates being increased, there would in my opinion be a danger of competition resulting. This would be a serious matter for the Company and would have the opposite effect to that which is the purpose of this application.

I am compelled to direct your attention to these facts because in view of the local feeling which has developed since this application was made, I am convinced that the present would be a most inopportune time for the Company to attempt to force increased charges upon its subscribers.

ANALYSIS OF COMPANY'S REPORTS.

The Secretary of the Company has furnished me with copies of its Reports for the past three years, which have been filed and show the following:—

Year ending January 31, 1910.

Revenue from rentals, tolls, etc.	\$9,665 85	
Balance from previous year	1,289 83	
Operating expenses, including upkeep	\$4,909 54	\$10,955 68
Interest	297 02	
		5,206 56
Net revenue		\$5,749 12
Or 13.6 per cent. on the paid-up stock on January 31st, 1910.		

Year ending January 31, 1911.

Revenue from rental, tolls, etc.	\$13,631 95	
Operating expenses, including interest on bonds, etc.	8,159 36	
Net revenue		\$5,472 59
Or 12.8 per cent. on the paid-up stock on January 31st, 1911.		

Year ending January 31, 1912.

Revenue from rental, tolls, etc.	\$15,993 68	
Operating expenses, including interest on bonds, etc.	13,843 58	
Net revenue		\$2,150 10

Or 5 per cent. on the paid-up stock on January 31st, 1912.

The balance sheet for this year shows that the assets exceed the liabilities by \$10,186.75.

The reduction in the amount of net revenue for the year ending Jan. 31st, 1912, is partly due to the fact that the Company in that year replaced its open wire construction in Waterford and Delhi with lead covered cable and made other improvements in its plant at these points, a large portion of the cost of which was properly charged to revenue. An examination of the reports for 1910-11 and 1911-12 shows that the cost of repairs and maintenance for 1911-12 exceeded that of the previous year by \$2,630.91. I am informed that one-third the cost

of the cable and all the labour in connection with this reconstruction was charged to revenue, which would account for the unusual expenditure for maintenance in 1911-12. This unusual expenditure at these points will, however, not have to be incurred again for many years, and moreover, the substitution of cable in place of open wires will reduce the normal cost of repairs.

Another reason for reduction in the amount of net revenue referred to, is the increased cost of operating at Simcoe, due to the arrangement made with the Bell Telephone Company whereby the Norfolk County Company withdrew its exchange from that town, and now pays the former company for switching the Norfolk County rural subscribers at the rate of \$5.00 per telephone. The Reports for 1910-11 and 1911-12 show the following:

1911-1912.		
Operating salaries	\$2,612 69	
Bell Telephone Company, rentals	1,640 36	
		<u>\$4,253 05</u>
1910-1911.		
Operators and manager		<u>2,777 22</u>
Increased cost of operating, 1911-1912		\$1,475 83

To this difference must also be added the cost of operating the Norfolk County Company's Simcoe Exchange in 1910-11, which was not incurred in the following years. The effect of this arrangement with the Bell Company has been to increase the rates of the rural subscribers in the vicinity of Simcoe from \$12 to \$15 a year, and to saddle the Norfolk County Company with an increased operating expense of two-fifths of \$1,640.36, or \$656.14, which has to be met out of the rentals from subscribers at other points, who receive no benefit from the Simcoe arrangement.

In view of the fact that the Norfolk County Company is paying the Bell Telephone Company \$5.00 per telephone at Simcoe for the same service which is furnished by the Bell Telephone Company at Brampton, to the Township of Chingunacousy for \$2.00 per telephone, it is obvious that the Norfolk County Company made an improvident bargain. This bargain and the resultant increase in the rural telephone charges at Simcoe is largely, if not altogether, responsible for the organized opposition to the Company's application.

CONDITION OF PLANT. LOCAL EXCHANGES.

From an examination of the Company's plant so far as time would permit, I am of opinion that the local exchange plants at Waterford and Delhi are in every way up to the standard for towns of their size. These plants have practically been reconstructed, and similar work is being proceeded with at Port Dover. In fact, had the Company's application been limited to the local subscribers at these points, on account of the expenditure on this reconstruction, there would have been no serious objection to the granting of the application. The additional revenue from the increased charges asked for at these points would, however, scarcely reach \$100.00 a year.

RURAL LINES.

In regard to the rural lines, I am of opinion, that in order to give a satisfactory service, these need to be systematically overhauled, and put in a state

of thorough repair. Until this has been done I do not think it will be possible to satisfy the subscribers up to the point where they will submit to an increase of charges, without the most strenuous opposition, if not the establishment of a competitive system. For this reason I would suggest that the Board defer taking any action in the matter of increasing the charges for rural service until the Company is able to satisfy the Board that its lines are all in an efficient state of repair, and that the causes for the many complaints placed on file with the Board have been removed.

FUTURE MANAGEMENT.

I am further of opinion that the most important need of the Company is a practical telephone man, with ability to handle men, to manage the system. While such a man would cost more than the present manager, I am satisfied he would be more economical in the end. If the statements of some of the subscribers and stockholders are to be relied upon, the present outside staff are not earning 50 per cent. of their wages. Serious complaints are made about these men loafing and drinking when they should be at work. These conditions are largely due to the fact that the men, especially the foreman, know that there is no official in authority over them with sufficient knowledge of the work to check them up and properly discipline them. So long as these conditions exist it will be impossible for the Company to operate its plant efficiently and economically.

CONCLUSION.

In conclusion I wish to say that the Officers and Directors of the Company have accorded to me every assistance in my investigation, and have evinced every desire to facilitate the work of the Board. I believe that this investigation has brought to light conditions which the Directors had no knowledge of. I am further satisfied that the Executive of the Company is perfectly sincere in its desire to improve the service up to a standard which will satisfy the demands of its subscribers and the public, and they have already expressed the intention of carrying out that desire.

I would therefore recommend in the event of the Board deciding to dismiss the Company's application at this time, that an opportunity be afforded to renew the application at a later date, and if it can then be shown to the satisfaction of the Board that the Company is furnishing an efficient service, and that its revenue is not adequate to pay a reasonable dividend upon its paid-up stock, after setting aside a sufficient amount for depreciation (which should be made compulsory) the question of a revision of its charges should be favourably considered.

I am, Dear Sir,

Your obedient servant,

(Sgd.) FRANCIS DAGGER.

LIST OF THOSE PERSONS ATTENDING NORFOLK COUNTY TELEPHONE MEETING, HELD AT
SIMCOE ON JULY 5TH, 1912.

Francis Dagger, expert for Board, in the chair.	S. McBride.	S. L. McPherson.
J. Jamieson.	C. Wooley.	Mr. Schultz.
W. H. Bartholomew.	D. Limery.	S. Sowden.
T. B. Waddle.	H. Wisner.	Mr. Blayney.
*W. J. King.	J. Leask.	*W. Innes.
C. Thompson.	*J. Peachy.	*J. H. Stafford.
*H. Potts.	C. Boughner.	H. Beemer.
*Geo. J. McKim.	*G. Killam.	J. Austin.
Geo. Potts.	*W. Gage.	E. Denning.
S. McBride.	A. Collins.	W. Denning.
E. Aitken.	*N. Clement.	H. Downing.
G. Crosby.	S. L. King.	Mr. Andrews.
R. Waddle.	C. Caswell.	J. McPherson.
*P. G. Pearce.	Geo. Robins.	Thos. McBride.
W. Lewis.	*T. R. Nelles.	*A. Teager.
A. D. Olds.	Mr. Shepherdson.	E. England.
W. Austin, and a number of others whose names were not obtained.		

Present representing the Company.

*E. H. Jackson, President.	*Jas. Johnson, Director.
*W. C. Lundy, Vice-President.	*T. D. Duncombe, Secretary.
*S. L. Squire, Director.	*J. H. McIlwraith, Manager.
*Dr. Alway, Director.	

NORFOLK COUNTY TELEPHONE COMPANY, LIMITED. MEETING AT DELHI, JULY 15TH, 1912.

Synopsis of Proceedings.

Present.

E. Morgan.	S. L. King.	*Geo. Smith.
*W. H. Woodside.	*Mr. Steele.	James Lawson.
*Dr. Tisdale.	*Martin Walters.	†S. L. Squire.
*Denton Dalton.	*Dr. Shane, Chairman.	†T. D. Duncombe.
*Henry Elliott.	Mr. Wilson.	†J. H. McIlwraith.
Mr. Hickney.	Mr. McPherson.	Francis Dagger, expert for Board.
*Frank Doan.	*F. T. Byers.	
Mr. McMaster.	Richard Dalton.	
*T. Morgan.	Joseph Hetherington.	

And several others whose names were not secured.

After introductory remarks by the Chairman and an explanatory statement by Mr. Dagger:

T. MORGAN, in opposing the proposed increase of charges, complained that the Company had not kept faith with the subscribers, by failing to build a line to Courtland. He further urged the necessity of night service. As a reason for the Company's inability to pay a dividend, he criticised its method of management and alleged as an instance of the expensive policy of the Company that it had cost for labor only \$700.00 to erect 4,350 feet of cable in Delhi.

W. H. WOODSIDE: Complained that while he was promised night service and that connection with Courtland for \$12.00 he was now paying \$19.00 a year (including \$1.00 extra for desk phone) and neither of these promises had been fulfilled. He objected to a \$14.00 rate for rural subscribers as it would lessen the value of the service to him as a business subscriber in Delhi. Considered the service inferior.

*Stockholders.

†Representing Norfolk County Telephone Association.

DENTON DALTON, as a stockholder, considered he was entitled to a dividend and if the Company could not give service for \$12.00 it should be allowed to raise the rates. In his opinion the Company was badly managed. Men were allowed to waste their time. He knew of cases where men drove twelve miles to dinner and the same distance back to their work. Waterford men controlled the situation. New management was needed. Company did not carry out its promises. Present manager is not qualified, being a cheesemaker, not a telephone man.

DR. TISDALE first paid \$12.00; now pays \$18.00. Urged necessity of night service

MR. MCPHERSON, J. HETHERINGTON, FRANK DOAN: All urged necessity of night service.

MR. WILSON considered service satisfactory. Pays \$18.00 a year. Does not want rural rates increased.

MR. DALTON asked why Waterford should have a night service, while Delhi had not.

MR. SQUIRE, for the Company, replied that the former exchange had more subscribers.

MR. MORGAN claimed that if the cost of new cable and labour was charged to construction, it would enable a dividend of 6 per cent. to be paid.

Messrs. Squire and Duncombe made a general reply for the Company, urging that it would not pay to give a night service at the present rates, and that many promises were made at the inception of the Company, in good faith, while they were ignorant of the telephone business, which the Directors had afterwards found they were unable to fulfill. In regard to Courtland, the Company was unable to secure enough subscribers to justify the building of the line, and at this date another company occupied most of the field, having built out from Tillsonburg.

MR. DAGGER promised to place a report of the meeting before the Board.

In answer to a question from Mr. Dagger, the meeting expressed the opinion that the day had gone by for the Courtland connection, as the majority of the prospective subscribers had been diverted to Tillsonburg as a result of the Company's neglect to develop the territory.

Upon the Board's own motion, upon hearing what was alleged by Francis Dagger, Esquire, the Board's telephone expert, and upon reading the telephone tariff of the Norfolk County Telephone Company, Limited, and the Order approving of the said Tariff, bearing date the 20th day of December, 1910, and the letters and correspondence in reference to the said tariff on file with the Board and the agreements between the said Company and the Municipalities.

The Board orders and directs that the Order approving of the said telephone tariffs of the said Company, bearing date the 20th day of December, 1910, be and the same is hereby cancelled and rescinded.

And the Board further orders that the said, the Norfolk County Telephone Company, Limited, shall forthwith prepare a new tariff in accordance with the agreements with the municipalities through which their telephone lines run and are operated and submit the same to this Board for approval.

(Seal)

(Signed) JAMES LEITCH,

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1215.

Application by Geo. M. Garton, under "The City and Suburbs Plans Act," for approval of Plan of Lots 4 and 5, Plan 460, North side Mortimer Avenue, County of York.

May 28. Application filed.

June 14. Objection filed by City of Toronto. Appointment for Hearing.

June 27. Hearing. Approval refused unless and until City file Consent. Street only 33 feet wide and must be 66 feet.

PROCEDURE FILE 1216.

Application by Ainslie Wilson Greene, under "The City and Suburbs Plans Act," for approval of Plan of Lot No. 1, Plan M21, Ottawa.

May 28. Application filed.

June 19. Consent of City of Ottawa filed.

June 22. Plan approved and certified.

PROCEDURE FILE 1217

(Application by Robert C. Price, et al., for telephone service).

Robert C. Price, et al.,

vs.

The Consolidated Telephone Company, Ltd.

May 28. Application and blue print filed.

May 29. Appointment for Hearing June 18th, 3 p.m., Board's Chambers.

June 18. Hearing, Judgment reserved.

PROCEDURE FILE 1218.

Application by The Commercial Land Company, under "The City and Suburbs Plans Act," for approval of Plan of Lots 16 and 17, Registered Plan No. 423, being subdivision of northerly part of Lot 30, in the Third Concession from the Bay, Township of York.

May 28. Application filed.

June 17. Consents of City of Toronto and Township of York filed. Plans approved and certified.

PROCEDURE FILE 1219.

Application by Arthur Williamson and John A. Torrance, Owners, under "The City and Suburbs Plans Act," for approval of Plan of part of Lot 6, Con. II, Township of Barton, now in Hamilton.

May 31. Application and copy of By-law approving Plan filed.

PROCEDURE FILE 1220.

Application by John Firstbrook, under "The City and Suburbs Plans Act," for approval of Plan of part of Lot 8, Con. I, East Yonge Street, Township of York, being a resubdivision of part of Registered Plan No. 1488, York.

May 31. Application filed.

June 28. Hearing. Stands for Consent of Municipalities.

July 3. Affidavit re service on City Council filed.

July 13. Consent of City filed. Consent of Township of York endorsed on Plan produced. Plan approved and certified.

PROCEDURE FILE 1221.

Application by Delta Park, Limited, under "The City and Suburbs Plans Act," for approval of subdivision of part Lot 5, Third Concession, Township of Barton, County of Wentworth, now in the City of Hamilton.

May 31. Application and copy of Resolution (showing approval by City Council, Hamilton), filed.

June 7. Plans approved and certified.

PROCEDURE FILE 1222.

Application by The City Estates of Canada, Limited, under "The City and Suburbs Plans Act," for approval of Plan of part Lot 18, Con. II, West of Yonge Street, Township of York.

June 4. Application filed.

June 7. Application withdrawn, land being more than five miles from Toronto.

Application by The Elmwood Land Company, Ltd., under "The City and Suburbs Plans Act," for approval of subdivision of Blocks "A" and "B," Plan 1158, and part Lot No. 2, Second Concession West of Yonge Street, Township of York.

June 4. Application and affidavits of service filed.

June 26. Objection filed by City of Toronto.

June 28. Hearing. Plan to be certified on filing City's Consent.

Aug. 7. Plan approved and certified.

PROCEDURE FILE 1224.

Application by the Town of Preston, under 6 Edw. VII, chap. 34, sec. 21, for approval of its By-law No. 508, (\$25,500 for extension of waterworks system).

June 5. Application and material filed. Letter for amended application.

June 7. Amended Application filed.

June 14. Further material filed as directed, considered and approved. Order.

PROCEDURE FILE 1225.

Application by the Town of Preston, under 6 Edw. VII, chap. 34, sec. 21, for approval of its By-law No. 509. (\$11,800 for Electric Light extensions).

June 5. Application and material filed. Letter for amended application.

June 7. Amended Application filed.

June 14. Further material filed, considered and approved. Order.

PROCEDURE FILE 1226.

Application by The W. E. Grierson Company, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of Lots numbered 1 to 9, inclusive, Block "F;" part Lot 30, Block "F;" Lots 7 to 12, inclusive; Lots numbered 13 to 22, inclusive in Block "L;" Lots number 1 to 9 inclusive, and Lots numbers 32 to 40 inclusive in Block "K;" Part of Lot 10, and part Lot 31, in Block "K," also lot numbers 1 to 9 inclusive, and lots numbers 32 to 40, inclusive, in Block "J;" also parts of Lots 10 and 31, in Block "J," and part of Block "M," according to registered Plan Number 1070, all in the Township of York, in the County of York.

June 5. Application filed.

June 28. Hearing. Plan approved and certified.

PROCEDURE FILE 1227.

Application by The Bell Telephone Company, of Canada, Ltd., under 10 Edw. VII, chap. 84, for approval of Agreement with the City of Windsor.

June 6. Agreement filed.

June 18. Hearing pursuant to Appointment. Agreement approved. Order.

PROCEDURE FILE 1228.

Application by William McEachren, under "The City and Suburbs Plans Act," for approval of Plan of part parcel No. 5, according to registered Plan 282, York.

June 6. Application and Consent of City filed. Plan approved and certified.

PROCEDURE FILE 1229.

Application by Henry Harris, and others, under "The City and Suburbs Plans Act," for approval of Plan of South half Lot 18 and Lots 19 and 20, Plan 423 County of York.

June 7. Application filed.

June 26. Objection filed by City of Toronto.

June 28. Hearing. Stands pending filing City's Consent.

Sept. 24. Appointment for Hearing Oct. 9, 2.30 p.m.

Oct. 9. Hearing. Plan approved when affidavit filed shewing street will be 66 feet wide.

Oct. 10. Affidavit filed. Plan approved and certified.

PROCEDURE FILE 1230.

Application by Malcolm Graham, under "The City and Suburbs Plans Act," for approval of Plan of Northerly half of Lot 2, Plan 652.

June 7. Application filed.

June 26. Objection filed by City of Toronto.

June 28. Hearing. Stands pending filing City's Consent.

Sept. 24. Appointment for Hearing October 9th, 2.30 p.m.

Oct. 9. Hearing. Judgment reserved.

PROCEDURE FILE 1231.

Application by Dr. John H. Bell, et al., under "The City and Suburbs Plans Act," for approval of Plan of Lots 10, 11, 12 and part 13, Plan 1030, Township of York.

June 7. Application filed.

June 26. Appointment for Hearing 28th inst., at 3.30 p.m., in Board's Chambers.

June 28. Hearing pursuant to Appointment. Application to stand until Applicant gets Consent of Township Council.

PROCEDURE FILE 1232.

Application by The Land Corporation of Ontario, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of part Plan 306, registered in the Registry Office for the Registry Division of County of York (secs. 1, 2 and 3).

June 10. Application filed.

June 26. Objection filed by City of Toronto.

June 28. Hearing. Plan to be approved on Agreement with North Toronto for dedication of three reserves for Parks, etc.

July 4. Amended Plan approved and certified.

PROCEDURE FILE 1233.

Application by Chas. H. Rooke and Edward W. Bickle, under "The City and Suburbs Plans Act," for approval of part Lot No. 5, First Concession, Township of York, West of Yonge Street.

June 10. Application filed.

June 13. Appointment for Hearing.

June 14. Objection filed by City of Toronto.

June 26. Objection filed by City of Toronto.

June 28. Hearing. Plan approved on Consent.

PROCEDURE FILE 1234.

Application by the Town of Berlin, under 6 Edw. VII, chap. 34, sec. 21, for approval of its By-law No. 1173. (\$30,000 for extensions to gas and electric light plants).

June 10. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1235.

Re application of The Dovercourt Land, Building and Savings Company, Ltd., by A. J. Williams, under "The City and Suburbs Plans Act," for approval of Plan of part of West half of Lot No. 2, Con. III, West of Yonge Street, Township of York.

June 10. Objection filed by City of Toronto.

June 13. Appointment for Hearing.

June 28. Hearing. Plan to be approved when amended as arranged and Consent of City filed.

Sept. 3. Plan approved and certified.

PROCEDURE FILE 1236.

In the matter of the Application of Chas. H. Gilmore, and Robert A. Sommerville, under "The City and Suburbs Plans Act," for approval of Plan of part Lots 9 and 10, according to Plan 285, York.

June 10. Objection filed by City of Toronto.

June 13. Appointment for Hearing.

June 28. Hearing. Plan approved and certified on Consent.

PROCEDURE FILE 1237.

Application by Asa Raymond Minard, under "The City and Suburbs Plans Act," for approval of Plan of Lot 3, Plan 1486, Con. "B," Township of Scarboro.

June 11. Application and Consent of Township of Scarboro filed.

June 13. Objection filed by City of Toronto. Appointment for Hearing.

June 28. Hearing. Stands pending preparation of City's General Plan.

Aug. Plan approved and certified.

PROCEDURE FILE 1238.

Application by Frank Williams, under "The City and Suburbs Plans Act," for approval of Plan of Lots 42, 43, 44 and 45, according to Registered Plan 448, Toronto.

June 12. Application and Consent of City of Toronto filed. Plan approved and certified.

PROCEDURE FILE 1239.

Application by the Town of Thessalon, under 8 Edw. VII, chap. 51, for validation of its By-law No. 14, 1912. (\$10,660.60 for sewers, etc.)

June 12. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1240.

Application by the City of St. Thomas, under "The Ontario Municipal Securities Act, 1908," for an Order validating its By-law 2036. (\$23,500 for Street Railway improvements).

June 12. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1241.

Application by the City of St. Thomas, under "The Ontario Municipal Securities Act, 1908," for an Order validating its By-law No. 2037. (\$6,500 for Street Railway extensions).

June 12. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1242.

Application by A. N. Morine, Adelaide M. Minard, A. B. Morine and James Manchester, Owners, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lot 8, Registered Plan 400, York Township.

June 12. Consent of City, and Affidavit proving Consent of Township of York, filed.

June 13. Plan approved and certified.

PROCEDURE FILE 1243.

Application by The Lambton Realty Company, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of part Lot 34, Con. III, from the Bay, Township of York, now in the City of Toronto.

June 12. Application filed.

June 13. Appointment for Hearing.

June 26. Objection filed by City of Toronto.

June 28. Hearing. Plan approved on Consent.

July 6. Plan certified.

PROCEDURE FILE 1244.

In the matter of the Application of W. N. McEachren, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part of East half of Lot 5, Con. I, Township of York.

June 13. Objection filed by City of Toronto.

June 28. Hearing. Plan to be approved on filing Consent of City.

PROCEDURE FILE 1245.

In the matter of the Application of Messrs. White and Co., under "The City and Suburbs Plans Act," for approval of Plan of part Lots 27, 28, and 29, Concession "B," Township of Scarboro.

June 13. Objection filed by City of Toronto.

PROCEDURE FILE 1246.

In the matter of the Application of R. Honeyford, under "The City and Suburbs Plans Act," for approval of Plan of Lots 1 and 2, Plan 1496, Township of Scarborough.

June 13. Objection filed by Township of Scarboro.

June 15. Application filed.

June 26. Consent of City of Toronto filed.

June 28. Hearing. Stands for City's General Plan.

Sept. 24. Appointment for Hearing, Oct. 9, 2.30 p.m.

Sept. 26. Letter received from Morine & Morine withdrawing objection.

Oct. 9. Consent of City and Township filed. Plan approved.

PROCEDURE FILE 1247.

Application by Archibald S. Wickware, under "The City and Suburbs Plans Act," for approval of Plan of Block 5, Plan Number 3459, Ottawa.

June 13. Application filed.

June 28. Plan approved and certified.

PROCEDURE FILE 1248.

Application by McLachlan, Stewart and Allison, under "The City and Suburbs Plans Act," for approval of Plan of south half of lots 5 and 6, Registered Plan 400, County of York.

June 13. Application filed. Plan approved and certified.

PROCEDURE FILE 1249.

Application by Daniel Baldwin, under "The City and Suburbs Plans Act," for approval of Plan of Lot "D," Plan No. 424, Scarboro Township, County of York.

June 15. Application filed.

June 26. Objection filed by City of Toronto.

June 28. Hearing. Plan approved.

July 10. Consent of City of Toronto filed. Plan approved and certified.

PROCEDURE FILE 1250.

Application by the Town of Leamington, under 6 Edw. VII. chap. 34, sec. 21, for approval of Waterworks Extension By-law 494, (\$3,425.00).

June 17. Application and material filed and considered. Letter re approval by Provincial Board of Health, under sec. 89 of "The Public Health Act."

June 28. Certificate of Provincial Board of Health filed. Order.

PROCEDURE FILE 1251.

In the matter of the Application of Martha Tuckett, under "The City and Suburbs Plans Act," for approval of Blocks "A" and "B," Registered Plan 1694, York.

June 17. Objection filed by City of Toronto.

June 22. Plan approved and certified (Consent of City of Toronto having been filed).

PROCEDURE FILE 1252.

Application by the City of Belleville, under 6 Edw. VII. chap. 34, sec. 21, for approval of its By-law 1751, (\$13,000 for extension and improvement of waterworks system.

June 18. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1253.

Application by The Stratford Railway Company, for approval of Plan, etc., shewing location for its Lines in Stratford.

June 18. Application and Plan, in triplicate, filed.

June 19. Plan considered, approved and certified, except as to bridges.

July 8. Profile filed for approval and referred to Board's Engineer.

July 9. Profiles returned to Company at request of Engineer, to have curves shewn thereon.

Sept. 6. Profiles approved.

PROCEDURE FILE 1254.

Application by the Town of Kingsmill, under 6 Edw. VII, chap. 34, sec. 1, for annexation of part of the Township of Gosfield South.

June 18. Petition and Declaration of Expediency filed.

June 24. Further material filed as directed, considered and approved. Order.

Upon the application of the said Corporation, and upon reading the Notice of Application filed by W. A. Smith, Esquire, Solicitor for the Applicant, the certified copies of the Resolutions passed by the Municipal Councils of the Township of Gosfield South and the Town of Kingsville, the Petitions for annexation signed by the Ratepayers, and the other material filed.

The Board orders and proclaims that

All and singular that certain parcel or tract of land and premises situate, lying and being in the Township of Gosfield South in the County of Essex and Province of Ontario, being composed of a part of farm Lot number Two (2) in the first Concession, Eastern Division, of the said Township and which said parcel or tract of land may be more particularly described as follows:—

Commencing in the Easterly limit of the Town of Kingsville where it is intersected by the water's edge of Lake Erie, thence northerly following the easterly limit of the said Town, six hundred and sixty feet more or less to the northerly limit of the south-east part of the present Town, thence easterly parallel to Lakeview Avenue, nine hundred feet more or less to the westerly limit of Wigle Avenue, thence southerly following the westerly limit of Wigle Avenue to the water's edge of Lake Erie, thence westerly following the water's edge of Lake Erie to the place of beginning be annexed to the said Town of Kingsville and form part of Polling Sub-division number Two thereof.

And the Board orders that the said annexation shall take effect on the First day of July, 1912, upon and subject to the following terms, namely:—

That the rate of taxation of such portion of said land as is used for farming purposes only, shall be no higher than the adjoining lands in the Township of Gosfield South, so long as used for farming purposes only.

(Seal)

(Signed) JAMES LEITCH,

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1255.

Application by the City of Berlin, under 8 Edw. VII, chap. 51, sec. 3, for validation of its By-law No. 1179, (\$14,669.36 for cost of certain local improvements [sewers] of 1911).

June 19. Application and material filed.

June 21. Letter for proof re Special Assessment.

June 27. Further material filed. Order.

PROCEDURE FILE 1256.

T. F. Foster and Others

vs.

Township of Chinguacousy.

(Application for Telephone Service, under sec. 36 of "The Ontario Telephone Act.")

June 19. Appointment for hearing, 27th inst., 3 p.m.

June 27. Hearing. Order allowing connection. Order to take effect on July 20th, 1912, unless moved against by Township of Caledon.

July 2. Order.

October 1. Rehearing, pursuant to appointment. Board decrees that order of July 2nd last shall stand.

Whereas the applicants being persons residing in that part of the Township of Caledon immediately adjacent to the Township of Chinguacousy, in which the respondent is operating a telephone system, have applied to the Board for an order requiring the respondent to furnish them with a telephone service in accordance with the provisions of Section 36 of "The Ontario Telephone Act,"

And whereas the Board did, on the Twenty-seventh day of June, 1912, hear the duly authorized representatives of the applicants and respondent in regard to the aforesaid application,

The Board now orders that the respondent furnish telephone service to the applicants whose names are incorporated in this order, that is to say: T. F. Foster, Alex. McDonald, A. M. Foster, D. W. McMillan, Geo. S. Kirkwood, S. O. McDonald, D. Campbell, F. McDonald, Jos. Mothersill, D. R. McDonald, George W. Patterson, Duncan Gibson, J. C. McArthur, Thos. R. Foster, J. F. Davidson, Daniel McDonald, Peter McEachren, David Gibson, upon the same terms and conditions as the respondent is now furnishing telephone service to its existing subscribers, or as may hereafter be approved by the Board.

And the Board further orders, in accordance with the provisions of Section 28 of "The Ontario Telephone Act," that the respondent shall erect such poles and wires along the roads and highways in the Township of Caledon as may be necessary to furnish the persons whose names are incorporated in this order with telephone service, upon such terms and conditions as may be agreed upon between the respondent and the Municipal Corporation of the Township of Caledon, or, in case the Respondent and the Municipal Corporation of the Township of Caledon are

unable to agree, then upon such terms and conditions as shall hereafter be prescribed by the Board.

And the Board further orders that this order shall come into full force and effect on the Twentieth day of July, 1912, provided however that the Municipal Corporation of the Township of Caledon may, before that date, make application to the Board to be heard upon the subject matter of this order.

The Board makes no order for costs, except that the applicants and respondent shall each pay Five Dollars for the stamp required for this order.

The Board reserves further directions.

(Signed) JAMES LEITCH,
(Seal.) Chairman of the Ontario Railway and Municipal Board.

The rehearing of the order of the Board made on the Second Day of July, A.D. 1912, in the matter originally intituled as "T. F. Foster and others vs. The Municipal Corporation of the Township of Chinguacousy," coming on this day to be heard, upon notice duly served upon the Municipal Corporation of the Township of Chinguacousy and the Municipal Corporation of the Township of Caledon, and the Consolidated Telephone Company, Limited, and all the said parties appearing before the Board, upon hearing what was alleged by the applicants and the Municipal Corporations of the Townships of Caledon and Chinguacousy, and the Consolidated Telephone Company, Limited, the Board were pleased to add the Municipal Corporations of the Townships of Caledon and the Consolidated Telephone Company, Limited, as parties hereto respondent,

The Board orders that the said order of the Second Day of July, A.D., 1912, as originally intituled, be and the same is hereby confirmed,

The Board further orders the respondent, the Municipal Corporation of the Township of Chinguacousy, to furnish telephone service to the following residents in the Township of Caledon, whose signatures are appended to a petition to the Board dated the Fifth Day of September, A.D. 1912, and whose names are herein set forth, as well as to the persons whose names are set forth in the said order of the Second Day of July, A.D. 1912:

E. J. McBride.
John Sage.
James McDevitt.
Robt. Wanless.
John Kidd.
R. A. Giffen.
Ben McDevitt.

F. T. McDevitt.
William McDevitt.
John Stewart.
John A. Wiggins.
J. R. Martin.
Harry Fudge.

Upon the same terms and conditions as are prescribed in the said order of the Board in the above matter as originally intituled, dated the Second Day of July, A.D., 1912.

And the Board further orders in accordance with the provisions of The Ontario Telephone Act that the respondents, the Corporation of the Township of Chinguacousy shall erect such poles and wires along the roads and highway in the Township of Caledon as may be necessary to furnish the person whose names are set forth in this order, and in the said Order of the Second Day of July, 1912, with telephone service, upon such terms and conditions as may be agreed upon between the Corporation of the Township of Chinguacousy and the Corporation

of the Township of Caledon, and if the said Corporations of Chinguacousy and Caledon are unable to agree, then upon such terms and conditions as shall hereafter be prescribed by the Board.

The Board reserves further directions.

The Board further orders that the Municipal Corporations of the Townships of Caledon and Chinguacousy shall each pay Five Dollars for stamps on this order, and otherwise the Board makes no order for costs.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1257.

Application by Arthur Williamson and Jno. A. Torrance, owners, under "The City and Suburbs Plans Act," for approval of plan of addition to King's Crescent (part or Lot 6, Con. II., Barton), Hamilton.

June 19. Consent of City of Hamilton filed. Plan approved and certified.

PROCEDURE FILE 1258.

Application by D. H. Hilbert, S. J. Murphy, and R. W. Parke (Trustees for Owners of the land) under "The City and Suburbs Plans Act," for approval of Plan of North-west quarter of Lot 35, Con. "B," Township of Scarborough.

June 19. Application and consent of township filed.

June 28. Hearing. Stands for city's consent.

Nov. 1. Consent of City and Township of Scarborough filed. Plan approved and certified.

PROCEDURE FILE 1259.

Application by the Fairmount Property Company, Ltd., under "The City and Suburbs Plans Act," for approval of plan of subdivision of part Block 2, Block 3, part Block 4 and 5; also Lots 9 and 10, and part Lot 12, and Lot 13, West Macdonald Street, now Fairmount Avenue; Lot 9-10, and parts Lots 11, 12, and 13, East McLean Street, now Gwynne Avenue, and Lot 1, 2, and 3, South Second Street, Lots 1, 2, and 3, North First Street, and Lots 1, 2, and 3, South First Street, and also parts of McLean Street and Gwynne Avenue, being part of west half of original Lot 37, First Concession (O.E.) Nepean.

June 21. Consent of city filed.

June 28. Affidavit, showing that property located within city limits, filed. Plan approved and certified.

PROCEDURE FILE 1260.

Application by J. T. Turner and J. H. Hyland, under "The City and Suburbs Plans Act," for approval of Plan of Lot 5, Con. 1, from Bay (York), Toronto.

June 21. Application and consent of city filed. Plan approved and certified.

PROCEDURE FILE 1261.

Application by The Lambton Realty Company, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of part Lot 34, Con. III., from the Bay, now in the City of Toronto.

June 21. Application filed. Hearing arranged for 28th inst., at 2.30 p.m.

June 26. Objection filed by City of Toronto.

June 28. Hearing. Plan approved on consent.

July 6. Plan certified.

PROCEDURE FILE 1262.

Application by J. B. Lewis and J. Moffatt Ross, under "The City and Suburbs Plans Act," for approval of Plan of part of Lot 25, Con. I., Ottawa Front, Township Nepean.

June 22. Application and plan filed. Letter for consents.

July 4. Consent of City of Ottawa and Township Nepean filed. Plan approved and certified.

PROCEDURE FILE 1263.

Application by the Village of Courtright, under sec. 16 of "The Consolidated Municipal Act, 1903," for annexation thereto of parts of Township of Moore.

June 22. Petition, etc., filed and considered. Letter to applicants thereon.

Dec. 9. Board appoints 19th inst., at Village Hall, Courtright, for hearing.

Dec. 19. Hearing pursuant to appointment. Application dismissed for present, being apparently in contravention of sec. 12 of "The Consolidated Municipal Act, 1903."

PROCEDURE FILE 1264.

Application by The J. C. Hayes Company, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of part of the northerly half of Lot 8. First Concession West of Yonge Street, Township of York. County of York.

June 22. Application. Consent of city and certificate as to consent of township filed.

June 24. Plan approved and certified.

PROCEDURE FILE 1265.

Application by James E. Wainwright and James Britton, under "The City and Suburbs Plans Act," for approval of Plan of Re-Division of Registered Plan 440E, Toronto.

June 24. Application and consent of City of Toronto filed. Plan approved and certified.

PROCEDURE FILE 1266.

Application by J. Campbell, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of southerly 82 acres of Lot 34. Con. "A." Rideau Front, Township of Nepean, County of Carleton.

June 25. Application and consent of city filed.

June 27. Plan produced with certificate of Township of Nepean approving of same. Plan approved and certified.

PROCEDURE FILE 1267.

Application by Charles Bansley, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lot 13, Plan 354, County of York.

June 25. Application and certificate as to consent of township filed.

June 28. Hearing. Stands for city's consent.

Aug. 20. Consent of city filed.

Aug. 22. Plan approved and certified.

PROCEDURE FILE 1268.

Application by The Colonial Realty and Securities Corporation, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 12, Con. II., from the Bay, Township of York (Toronto).

June 26. Application and affidavit proving consent of city filed. Plan approved and certified.

PROCEDURE FILE 1269.

Application by the City of Guelph, under 6 Edw. VII., chap. 34, sec. 21, for approval of its By-law No. 943 (\$14,514.75 for waterworks extensions).

June 26. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1270.

Herbert Williams

vs.

Fort Frances.

(Assessment Appeal.)

June 26. Application filed. Appointment for hearing at Port Arthur September 12th, 2.30 p.m.

Sept. 12. Hearing adjourned at respondent's consent pending taking evidence on Commission. Applicant's cost of day allowed at \$25.00 to be paid by respondents forthwith.

PROCEDURE FILE 1271.

In the matter of the application of R. E. Westrop and T. H. Everson, under "The City and Suburbs Plans Act," for approval of plan of part of Lot 4, registered Plan 396.

June 26. Objections filed by City of Toronto.

June 28. Hearing. 66 foot street at south to be opened, Birrell Avenue at north to be closed. Approval to be then consented to by city and amended plan to be certified.

July 10. Consent of city filed and amended plan approved and certified.

PROCEDURE FILE 1272.

In the matter of the application of The Douglas Land Company, Ltd., under "The City and Suburbs Plans Act," for approval of plan of subdivision of Lot 10, Con. I, east of Yonge Street, Township of York.

June 27. Objection filed by City of Toronto (dated June 26th), 1912.

Application filed.

Objection of city recalled by consent filed.

Consent of township filed.

Plan approved and certified.

PROCEDURE FILE 1273.

Application by Hampton Park, Limited, under "The City and Suburbs Plans Act," for approval of part Lot 33, Con. I, Ottawa Front, Township Nepean, County of Carleton.

June 27. Application and consent of city filed.

July 22. Plan produced with consent of Township of Nepean thereon. Plan approved and certified.

PROCEDURE FILE 1274.

Application by H. Howard Shaver and Charles E. Cummings, under "The City and Suburbs Plans Act," for approval of plan of subdivision of the northerly 40 acres of the south 61 acres of Lot 14, Con. 5, Township of Barton, County of Wentworth.

June 27. Consent of City of Hamilton and Township of Barton filed. Plan approved and certified.

PROCEDURE FILE 1275.

Application by Joseph W. McNab, under "The City and Suburbs Plans Act," for approval of plan of subdivision of Sandown Park, being part Lots 27, 28 and 29, Concession "B," Township of Scarboro, County of York.

June 27. Application and consents of city and township filed.

June 28. Plan approved and certified.

PROCEDURE FILE 1276.

Application by M. Levy and P. D. Crerar, under "The City and Suburbs Plans Act," for approval of plan of subdivision of part of Lot 9, Con. I, Township of Barton, now in the City of Hamilton.

June 28. Consent of City of Hamilton filed. Plan approved and certified.

PROCEDURE FILE 1277. (P. F. P. 106.)

Application by The Hamilton Cataract Power, Light and Traction Company, Ltd., for approval of plan and book of reference of line for electric power transmission from De Cew Falls to Hamilton.

June 28. Plans and book of reference and Board's Engineer's Report thereon filed, considered and approved.

Plans and book of reference certified under 6 Edw. VII., c. 30, sec. 59, ss. 9.

Gentlemen,—I recommend for your approval the plans herewith, of the above Company for transmission line, to be built at once from St. Catharines to Hamilton. The proposed line is to be built along the mountain on a right-of-way some 80 feet in width, and takes the place of the lines proposed through the valley (plans P. F. 1135 and 1136 and P. F. P. 97 and 98), where the land has been considered too expensive.

This line (on the mountain) is designed to be built on steel towers with ultimately two circuits of three 2-0 copper stranded cables each. It is to be operated at 45,000 volts A. C. three phase, 66.6 cycles. The "ground" is to be of No. 6 gauge "Monnot" wire. (This wire has a steel core and is surrounded by copper.) It will not be liable to rust and fall down like the ordinary galvanized ground wire. I have gone carefully over these plans, and corrected some slight errors between them and the books of reference, which corrections I have initialed.

Respectfully submitting the above, I am,

Yours very truly,

(Sgd.) J. F. H. Wyse.

PROCEDURE FILE 1278.

Application by J. A. H. McKelvie, and Albert Benjamin Ormsby, under "The City and Suburbs Plans Act," for approval of plan of subdivision of Lots 8, 9 and 10, Village of Mimico, County of York.

June 28. Application and report of Board of Control filed. Hearing. Plan approved.

Aug. 7. Plan certified.

PROCEDURE FILE 1279.

Application by the City of Niagara Falls, under 6 Edw. VII., chap. 34, sec. 21, for approval of its By-law No. 503 (\$26,470.15 for waterworks extensions).

June 28. Application and material filed.

July 2. Application and material considered and approved. Order.

PROCEDURE FILE 1280.

Application by Toronto Savings and Loan Company, for annexation to Peterborough of part of the Township of North Monaghan.

July 2. Application and material filed, considered and approved. Order.

Upon the application of the said Company, and upon reading the petition for annexation, the notice to the Township of North Monaghan by the City of Peterborough, the certified copy of a resolution of the said city passed on the Fourteenth day of June, 1912, the affidavit of W. F. Johnston, Solicitor for the said city, and the order of His Honour, Judge Huycke, and the other material filed.

The Board orders and proclaims that,

All and singular that certain parcel or tract of land and premises situate, lying and being in the Township of North Monaghan in the County of Peterborough, being a Township adjoining the City of Peterborough in the County of Peterborough on the west, described as follows, namely: All and singular that certain parcel or tract of land and premises situate lying and being part of Lot Number Twelve (12) in the Thirteenth (13) Concession of the Township of Monaghan, County of Peterborough and Province of Ontario, and being composed of Lots Numbers One (1), Two (2), Three (3), Four (4), Twenty-nine (29), Thirty (30), Thirty-one (31), Thirty-two (32), Thirty-three (33) and Thirty-four (34) lying south of Wallis Avenue, and parts of Lots Numbers Two (2), Three (3), Four (4), Five (5) and Six (6) lying north of Wallis Avenue and that part of Wallis Avenue lying west of the westerly limit of Monaghan Road and east of the easterly limits of Albertus Avenue as shown on Registered Plan Number Twenty-nine (29) for the Township of Monaghan—which said parcel of land and premises is more particularly described as follows—that is to say: commencing at the intersection of the northerly limit of Hopkins Avenue with the westerly limit of Monaghan Road; thence northerly along the said westerly limit of Monaghan Road and along the production thereof across Wallis Avenue and again along the westerly limit of Monaghan Road a total distance of four hundred and twenty-six feet eight inches (426 ft. 8 in.) to a point distant forty seven feet two inches (47 ft. 2 in.) northerly from the northerly limit of Wallis Avenue: thence westerly parallel with the northerly limit of Hopkins Avenue four hundred feet more or less (400 ft. more or less) to the easterly limit of Albertus Avenue; thence southerly along the easterly limit of Albertus Avenue and along the production thereof across Wallis Avenue and again along the easterly limit of Albertus Avenue a total distance of four hundred and twenty-six feet eight inches more or less (426 ft. 8 in. more or less) to the northerly limit of Hopkins Avenue; thence easterly along said northerly limit of Hopkins Avenue four hundred feet more or less (400 ft. more or less) to the westerly limit of Monaghan Road and place of beginning containing by admeasurement three and ninety two one-hundredths of an acre (3.92 Ac.) be the same more or less, be annexed to the said City of Peterborough and form part of the West Ward thereof.

And the Board orders that the said annexation shall take effect on the day of the date of this order.

(Seal.)

(Signed) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1281. (P. F. P. 107.)

Application by The Toronto Suburban Railway Company, for approval of plan, profile and book of reference of its proposed line of railway—mileage 15.12 to 21.57 in Peel and Halton Counties.

July 2. Plan, profile and book of reference filed, considered and approved and certified.

PROCEDURE FILE 1282. (P. F. P. 108.)

Application by The Toronto Suburban Railway Company, for approval of Plan, profile and Book of Reference of proposed Woodbridge Division (Weston to Woodbridge).

July 5. Plan, profile and Book of Reference filed and referred to Board's Engineer.

July 6. Engineer's Report approving filed. Plans, etc., approved and certified.

Oct. 7. Stress Sheets of Trestles at Stations 190 + 26, 286, and 306-307 filed for approval and referred to Board's Engineer.

Dec. 11. Board's Engineer's Report filed. Plans, etc., approved and certified.

SIR: I have examined the plans for a wooden trestle on The Toronto Suburban Railway at Station 190 + 26, and my calculations show the trestle strong enough to carry Class II loading of the Board's specifications with the impact allowance added. I therefore recommend these plans for your approval.

Yours truly,

(Sgd.) H. W. MIDDLEMIST.

SIR: I have examined the plans for a wooden trestle on The Toronto Suburban Railway at station 286, and my calculations show the trestle strong enough to carry Class II loading of the Board's specifications with the impact allowance added. I therefore recommend these plans for your approval.

Yours truly,

(Sgd.) H. W. MIDDLEMIST.

SIR: I have examined the plans for a wooden trestle on The Toronto Suburban Railway at station 306 & 307, and my calculations show the trestle strong enough to carry Class II loading of the Board's specifications with the impact allowance added. I therefore recommend these plans for your approval.

Yours truly,

(Sgd.) H. W. MIDDLEMIST.

PROCEDURE FILE 1283. (P. F. P. 109).

Application by Toronto Suburban Railway Company, for approval of Plan, etc., of proposed Line from Georgetown to Guelph (Dundas Division).

July 5. Plan, profile and Book of Reference filed and referred to Board's Engineer.

July 6. Engineer's Report approving filed. Plans, etc., approved and certified.

PROCEDURE FILE 1284.

In the matter of the Application of Dunvegan Height Land Company, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of Block "B" and part Block "A," Registered Plan 1253, York County.

July 8. Objection filed by City of Toronto.

Sept. 21. Plan approved and certified. (See P. F. 1378).

PROCEDURE FILE 1285.

In the matter of the Annexation to Sault Ste. Marie of part of the Township of Tarentorus (The Moffly subdivision) under 2 Geo. V, c. 121, sec. 13.

July 6. Certificate as to vote filed by the Clerk of the Township of Tarentorus.

Sept. 18. Draft annexation Order filed, considered and approved. Order.

Sept. 23. New Order issued correcting clerical error in Applicant's original draft Order.

Upon the application of the City of Sault Ste. Marie, upon reading the Certificate of the Clerk of the Township of Tarentorus filed, and it appearing that the majority of the ratepayers of the Moffly Subdivision, in the said Township, voted in favor of having the said Subdivision annexed to the City of Sault Ste. Marie, the said vote being taken in pursuance of Ontario Statutes 2 George V, Chapter 121,

It is ordered and proclaimed that the lands known as Moffly Subdivision "A" and Moffly Subdivision "B," being the most southerly 102 acres of Section Number 31 in the said Township of Tarentorus, be, and the same are hereby annexed to the City of Sault Ste. Marie, upon the following terms and conditions, namely:—

1. All expenses of taking the said vote shall be repaid to the said Township of Tarentorus by the said City of Sault Ste. Marie forthwith.

2. The assessment of the lands comprised in the said subdivision for the year 1912, as confirmed by the Court of Revision for the said Township of Tarentorus and the District Judge of the District of Algoma, shall be adopted by the said City of Sault Ste. Marie as the assessment of the said lands for the said year.

3. All taxes for the year 1912 on the said lands shall be collected by and belong to the said City of Sault Ste. Marie.

4. All arrears of taxes due to December 31st, 1911, on the said lands shall be collected by the said City of Sault Ste. Marie; and the right to collect same, including distress for non-payment, or if necessary the sale of the said lands or any of them for such arrears of taxes shall be vested in the said City of Sault Ste Marie, but the proceeds of the collection of such arrears of taxes shall be repaid to the said Township of Tarentorus by the said City of Sault Ste. Marie within six (6) months from the date of collecting same after deducting the proper costs and expenses in connection with the recovery of said arrears of taxes.

5. The voters' list prepared by the said Township for the said lands shall be adopted by the said City as the Voters' list to be used in any election to be held from and after the date hereof until the assessment and voters' list for the said lands for the year 1913 shall be made by the said City of Sault Ste. Marie.

6. All agreements made by the said Township in respect to the said lands hereby annexed shall be assumed by and be binding on the said City of Sault Ste. Marie.

7. The said lands shall be added to Ward Number 3 of the said City for public school purposes.

(Seal)

(Signed) JAMES LEITCH,

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1286.

Application by J. E. Cole, Owner, under "The City and Suburbs Plans Act," for approval of Plan of parts Lots 29 and 30, First Concession, Ottawa Front, Township Nepean (Highland Park).

July 11. Application and Consent of City of Ottawa filed. Plan produced with Consent of Township Nepean endorsed thereon. Letter for Consent of Township Nepean (for filing) under the said Act and re width of streets.

July 16. Plan approved and certified.

PROCEDURE FILE 1287.

Application by The Bell Telephone Company, of Canada, Limited, for approval of Agreement (dated 26th June, 1912) with the Town of Preston.

July 11. Application and Agreement filed.

Sept. 7. Application and Agreement considered and approved. Order.

PROCEDURE FILE 1288.

Application by M. Levy, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 8, Con. 1, Township Barton, now in City of Hamilton.

July 15. Application and Consent of City filed. Plan approved and certified.

PROCEDURE FILE 1289.

Application by W. F. Garland, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Block I, Township Nepean, County Carleton, Registered Plan No. 25,165, Nepean.

July 16. Application and Consent of City of Ottawa and Township Nepean filed. Plan approved and certified.

PROCEDURE FILE 1290.

Application by J. H. Ridgway, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lots 23, 24 and 25, West Stratheona Avenue, County Carleton (Nepean).

July 16. Application and Consent of City of Ottawa and Township filed. Plan approved and certified.

PROCEDURE FILE 1291.

In the matter of the Application of Pember and Smith, under "The City and Suburbs Plans Act," for approval of subdivision of parts registered Plans 531, 1441 and 1686, and parts Lots 8 and 9, Range 3, Kingsmill Reserve, Township of Etobicoke.

July 16. Objection filed by City of Toronto.

Oct. 9. Hearing. Plan approved and certified.

PROCEDURE FILE 1292.

Application by the Village of Port Colborne, under 8 Edw. VII, chap. 51, for validation of By-law No. 6, 1912 (\$20,000 for erection of School House).

July 18. Application and material filed. Letter for further affidavits.

Sept. 6. Application and material considered and approved. Order.

PROCEDURE FILE 1293.

Application by John Mitchell, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part of Lots 18, 19 and 20, on the West side of Clinton Street in the City of Toronto, according to Registered Plan 75.

July 18. Consent of City filed. Plan approved and certified.

PROCEDURE FILE 1294.

In the matter of the Application of James S. Robertson, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of the south-west part of Lot 1, in the Second Concession, Township of Barton, in the County of Wentworth.

July 19. Objection of City of Hamilton filed.

PROCEDURE FILE 1295.

Application by Henry Gaffney and Samuel Slatky, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lot 9, Plan 1599, part Lot 16, Plan 426 and part Plan 1086.

July 19. Application filed. Plan produced with City of Toronto's approval endorsed thereon. Plan approved and certified.

PROCEDURE FILE 1296.

Application by James Edward Graham and James Pears, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of the northerly portion of part Lot 14, registered Plan 115, Township of York, County of York.

July 20. Application filed.

Sept. 14. Consent of City filed. Township's approval endorsed on Plan.

Sept. 18. Plan approved and certified.

PROCEDURE FILE 1297.

Application by James Pears and James Edward Graham, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of the southerly portion of part Lot 14, Registered Plan 115, Township of York, County of York.

July 20. Application filed.

Sept. 14. Consent of City filed, Township's approval endorsed on Plan.

Sept. 18. Plan approved and certified.

PROCEDURE FILE 1298. (P. F. P. 110).

Application by The Toronto Suburban Railway Company, for approval of Plans, etc., for bridges over West Humber River and Humber River.

July 20. Plans filed—Letter for stress sheets, specifications, etc.

Sept. 5. Stress sheets, etc., received and referred to Board's Engineer.

Sept. 19. Engineer's Report received approving stress sheets, etc. Plans approved and certified.

Oct. 8. Revised stress sheets of Humber River crossing filed for approval and referred to Board's Engineer.

Oct. 11. Engineer reports approving. Stress sheets, etc., approved and certified.

PROCEDURE FILE 1299.

Application by Hillcrest Land Company, Limited, Owners, under "The City and Suburbs Plans Act," for approval of Plan of part of Lot IV, Plan 115, York, now in the City of Toronto.

July 20. Application and Consent of City of Toronto filed. Plan approved and certified.

PROCEDURE FILE 1300.

Application by the City of Toronto, Owners (Tax Sale Lands) under "The City and Suburbs Plans Act," for approval of Plan of Lot 1a, Registered Plan 96.

July 24. Plan produced and Consent of City filed. Plan approved and certified.

PROCEDURE FILE 1301.

Application by the Village of Weston, under 8 Edw. VII, chap. 51, for validation of By-law No. 547, (\$30,000 for erection of High School).

July 26. Application and material filed.

July 27. Application withdrawn.

PROCEDURE FILE 1302. (P. F. P. 111).

Application by The Berlin Light Commissioners, under 7 Edw. VII, c. 58, sec. 4, and 10 Edw. VII, c. 81, sec. 3, for approval of Wyes, Switches, etc., for Berlin Street Railway.

July 26. Application and material filed.

Sept. 6. Application and material considered and approved.

PROCEDURE FILE 1303.

Application by The Bell Telephone Company of Canada, Limited, under "The Ontario Telephone Act, 1910," for approval of Agreement, dated 5th Sept., 1911, with the Township of Brooke.

July 27. Application and copy of Agreement filed.

PROCEDURE FILE 1304.

Application by The Bell Telephone Company of Canada, Limited, under "The Ontario Telephone Act," for approval of Agreement with the Byron Telephone Company, Ltd.

July 27. Application and copy of Agreement filed.

PROCEDURE FILED 1305.

Application by The Bell Telephone Company of Canada, Limited, under "The Ontario Telephone Act, 1910," for approval of Agreement, dated 11th May, 1912, with the Township of West Tilbury.

July 27. Application and copy of Agreement filed.

PROCEDURE FILE 1306.

Application by The Bell Telephone Company of Canada, Limited, under "The Ontario Telephone Act, 1910," for approval of Agreement, dated 1st June, 1912, with the Township of North Colchester.

July 27. Application and copy of Agreement filed.

PROCEDURE FILE 1307.

Application by The Bell Telephone Company of Canada, Limited, under "The Ontario Telephone Act, 1910," for approval of Agreement, dated 6th June, 1912, with the Township of Osprey.

July 27. Application and copy of Agreement filed.

PROCEDURE FILE 1308.

Application by The Bell Telephone Company of Canada, Limited, under "The Ontario Telephone Act," for approval of Agreement with The East Middlesex Telephone Company, Limited.

July 27. Application and copy of Agreement filed.

PROCEDURE FILE 1309.

Application by The Bell Telephone Company of Canada, Limited, under "The Ontario Telephone Act," for approval of Agreement with The Nelson Telephone Company, Ltd.

July 27. Application and copy of Agreement filed.

PROCEDURE FILE 1310.

Application by The Bell Telephone Company of Canada, Limited, for approval of Agreement (dated 24th June, 1912) with the Township of Rochester.

July 27. Application and copy of Agreement filed.

PROCEDURE FILE 1311.

Application by Kate Crooks, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lot No. 11, according to Plan of late John Dymes, being part of Burlington Beach, County of Wentworth.

July 27. Application filed.

Aug. 20. Consent of City filed.

Aug. 22. Plan approved and certified.

PROCEDURE FILE 1312.

Application by The Dovercourt Land, Building & Savings Company, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 8, First Concession, West of Yonge Street, partly in the Town of North Toronto, and Township of York.

July 30. Application filed.

Aug. 24. Objection of City filed.

Sept. 24. Appointment for Hearing Oct. 10, 2.30 p.m.

Oct. 10. Hearing. Plan to be approved when amended by closing streets on rights of way between lots 17 and 18, 41 and 42, 79 and 80, and 103 and 104. (See Stenographer's notes).

Nov. 26. Plan amended as directed by the Board and approved and certified.

PROCEDURE FILE 1313.

In the matter of the Application of A. S. Thompson, M.D., under sec. 29 of "The Ontario Telephone Act, 1912," for leave to sell his private telephone system to The Bell Telephone Company of Canada, Ltd.

July 31. Petition received from the Provincial Secretary's Department and referred to Board's Expert.

Aug. 1. Matter not under jurisdiction of Board.

PROCEDURE FILE 1314.

Application by F. H. Miller and E. G. Miller, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part of Lot 9, 494 (Dufferin Street) in the City of Toronto.

Aug. 1. Consent of City filed.

Aug. 7. Plan approved and certified.

PROCEDURE FILE 1315.

Application by the Village of Marmora, under 8 Edw. VII, Chap. 51, for validation of By-law No. 104, (\$3,000 for building and equipping a school house).

Aug. 2. Application and material filed.

Sept. 4. Letter for further material.

PROCEDURE FILE 1316.

Application by the Town of Pembroke, under 6 Edw. VII, chap. 34, sec. 21, for approval of By-law 547, (\$5,000 for extension of waterworks).

Aug. 2. Application and material filed.

Aug. 23. Application withdrawn.

PROCEDURE FILE 1317.

Application by the Township of Whitney, under 8 Edw. VII., chap. 51, for validation of By-law No. 13. (\$20,000 for extension of waterworks. etc.).

Aug. 2. Application and material filed.

Sept. 18. Further material filed as directed and considered and approved by the Board. Order.

PROCEDURE FILE 1318.

Application by C. B. Nasmith, owner, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lot 3, Con. II., west of Yonge Street, Township of York.

Aug. 9. Consent of city and township filed.

Aug. 12. Plan approved and certified.

PROCEDURE FILE 1319.

Application by the Town of Sudbury, under 8 Edw. VII., chap 51, for validation of its By-law No. 289, and debentures thereunder (\$32,000. school, etc.).

Aug. 2. Application and material filed.

Sept. 6. Application and material considered and approved. Order.

PROCEDURE FILE 1320.

Application by Elias Rogers, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part of Registered Plan 466 (York).

Aug. 12. Application filed.

Aug. 24. Objection of city filed.

Sept. 24. Appointment for hearing, Oct. 10, 2.30 p.m.

Oct. 10. Hearing. Ordered that the whole (including the loop or curve) of Gordon Avenue (new part) be widened to 66 feet, and so shewn on Plan. (See stenographer's notes.) (See P.F. 1540.)

PROCEDURE FILE 1321.

Application by The Lambton Realty Company, Ltd., under "The City and Suburbs Plans Act," for approval of plan of subdivision of part Lot 34, Con. III., from the Bay, in the Township and County of York.

Aug. 12. Application filed.

Sept. 6. Objection filed by City of Toronto.

Sept. 24. Appointment for hearing, October 9, 2.30 p.m.

Oct. 9. Hearing. Plan approved and certified.

8 R.M.

PROCEDURE FILE 1322.

Application by Annie M. Baird, under "The City and Suburbs Plans Act," for approval of proposed subdivision of Block "B," Registered Plan D 1348, Toronto.

Aug. 13. Application filed.

Sept. 28. Plan produced with consent of city endorsed thereon. Plan approved and certified.

PROCEDURE FILE 1323.

Application by John H. Bell, et al., under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lots 10, 11 and 12, and part Lot 13, Registered Plan 1030, County of York.

Aug. 13. Application and consent of city filed.

Aug. 22. Plan approved and certified.

PROCEDURE FILE 1324.

Application by Charles Nasmith and James Spence, owners, under "The City and Suburbs Plans Act," for approval of amendment to Plan No. 1061, amendment being as follows: To close Leith Street from east limit of Denton Street to east limit of said Plan 1061, and to produce Denton Street southerly to south limit of said plan.

Aug. 15. Application and consent of city filed.

Aug. 22. Plan approved and certified.

PROCEDURE FILE 1325.

Application by the Township of Derham, under 8 Edw. VII., chap. 51, for validation of its By-law No. 653 (\$11,000 for building and equipping a school-house).

Aug. 16. Application and material filed.

Sept. 5. Application and material considered and approved. Order.

PROCEDURE FILE 1326.

Application by John S. Wilson, William McKenzie, and William Scrimger, under 6 Edw. VII., chap. 34, sec. 1, for annexation of Part Lot 7, Con. 10, Township of North Dumfries to Town of Galt.

Aug. 17. Application and material filed.

Sept. 5th. Application and material considered and approved. Order.

Upon the application of the Municipal Corporation of the Town of Galt, and of William McKenzie, William Scrimger, and John S. Wilson, the owners of the lands hereinafter described, and upon reading the resolution passed by the Municipal Council of the Town of Galt at a regular sitting held on the Fourth day of June, 1912, declaring that it is expedient that the said portion of the Township of North Dumfries adjacent to the Town of Galt be annexed to the said town, and upon reading the petition for such annexation signed by the said William McKenzie,

William Scrimger, and John S. Wilson, and the resolution of the Municipal Council of the said Town of Galt, passed at a regular sitting held on the Thirteenth day of August, 1912, instructing the Town Solicitor to apply for an order annexing said lands to said town, and the resolution passed by the Municipal Council of the said Township of North Dumfries at a regular meeting held on the Tenth day of August, 1912, consenting to the annexation to the Town of Galt of the said lands, and the other material filed in support of this application,

The Board doth order and proclaim that the following lands, namely: All and singular that certain parcel or tract of land, situate, lying, and being in the said Township of North Dumfries, being composed of the Northerly Twenty-eight acres of Lot Number Seven in the Tenth Concession of the Township of North Dumfries, and which is bounded on the south by a line parallel to the northerly boundary of said lot, and includes William McKenzie's Plan 171, be and the same are hereby annexed to the Town of Galt as part of Ward Number Three thereof, said annexation to take effect on the day of the date of this order, upon and subject to the following terms and conditions, namely:—

1. Lot number Twenty-eight in said Plan No. 171 (which is built on) shall be liable to assessment like other town property after annexation.

2. The remainder of said lands shall be assessed at a fixed rate of Fifty dollars per acre, and exempt from the existing debenture debt of the town, until sold or built on, but after being either sold or built on, shall be liable to all Town Taxes, and to be assessed like other property in the town.

3. The dwelling and other farm buildings at present on the portion of said lands belonging to William McKenzie shall be assessed on a fixed valuation of One thousand dollars, so long as used for farm purposes.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1327.

Application by the Town of Fort Frances, under 6 Edw. VII., chap. 34, sec. 21, for approval of waterworks extension By-law 278.

Aug. 17. Application and material filed.

Sept. 5. Application and material considered and approved. Order.

PROCEDURE FILE 1328.

Application by The Toronto Realty Company, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lots 162 to 170, Plan 840, Township of York.

Aug. 20. Application and consent of city filed.

Aug. 22. Plan approved and certified.

PROCEDURE FILE 1329.

Application by Alfred Nevill Morine, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lot 3, Registered Plan 1496, being a subdivision of part of Lot No. 32, Con. "B." Township of Scarborough.

Aug. 20. Application and consent of city filed.

Aug. 22. Plan approved and certified.

PROCEDURE FILE 1330.

Application by the Town of Alexandria, under "The Ontario Municipal Securities Act, 1908," for an order validating its By-law 157 (\$3,309.10 for granolithic sidewalks).

Aug. 21. Application and material filed.

Sept. 6. Application and material considered and approved. Order.

PROCEDURE FILE 1331.

Application by H. C. Stevenson, under "The City and Suburbs Plans Act," for approval of Ruskin Place Plan, showing subdivision of part of sublots 6 and 7, of Lot 22, Junction Gore. Township of Gloucester, in the County of Carleton.

Aug. 23. Application and consent of city filed. (Consent of township endorsed on plan.)

Sept. 4. Plan approved and certified.

PROCEDURE FILE 1332.

Application by Martha Tuckett, under "The City and Suburbs Plans Act," for approval of part of Block "A" and "B," Plan 1694.

Aug. 24. Application filed.

Aug. 30. Consent of city filed.

Sept. 3. Plan approved and certified.

PROCEDURE FILE 1333.

Application by the Town of Cobalt, under 6 Edw. VII. chap. 34, sec. 1, for annexation of the north-east quarter of the north half of Lot 6, Con. 6, Township of Coleman, and the north-west quarter of the north half of Lot 6, Con. 6, Township of Coleman, east and north-east of Sasaguiaga Lake, to the said town.

Aug. 2. Declaration of Expediency, Petition, etc., received from Provincial Secretary's Office.

Sept. 5. Appointment for hearing 23rd inst., 2.30 p.m., at Board's Chambers.

Sept. 23. Hearing adjourned to Oct. 15, 2.30 p.m., pending negotiations.

Oct. 15. Hearing. Annexation decreed. (See stenographer's notes.)

Dec. 16. Order.

Upon hearing the application of the Hudson Bay Mines, Limited, made this day, and upon reading the petition of the said applicants and the resolution of the Corporation of the Town of Cobalt, and upon hearing what was alleged by counsel on behalf of the applicants and the said Town of Cobalt and counsel for the Township of Coleman, the Board orders and proclaims that the lands and premises in the Township of Coleman described as follows:

1. All that parcel or tract of land situate, lying, and being in the Township of Coleman, in the District of Nipissing and Province of Ontario, being composed of the north-east part of Lot Number Six in the Sixth Concession of the said Township of Coleman, being all that portion of said lot lying north of the north limit of Mining Location J.B.7, and east of a line drawn due north astronomically to the north limit of said lot from the north-west angle of said Mining Location

J.B.7, as shown on plan of survey of the said Township of Coleman by Ontario Land Surveyor W. J. Blair, dated 1904 of record in the Department of Crown Lands, containing by admeasurement forty acres more or less, registered in the Land Titles Office at North Bay as Parcel 200 leasehold in the Register for Nipissing.

2. The north-west part of Lot Number Six in the Sixth Concession of the said Township of Coleman, described as follows: Being all that portion of said Lot lying north-east of Sasaginaga Lake and west of that portion of the west boundary of Mining Location J.B.7, north of the outlet of said lake and west of a line drawn due north astronomically to the north boundary of said Lot from the north-west angle of said Mining Location J.B.7, as shown on plan of survey of the Township of Coleman by Ontario Land Surveyor W. J. Blair, dated 1904 of Record in the Department of Crown Lands, registered in the Land Titles Office at North Bay as Parcel 2347 in the Register for Nipissing, containing by admeasurement twenty acres more or less. Be and the same are hereby annexed to the Town of Cobalt, the said annexation to take effect on the 1st day of November, 1912, upon and subject to the following terms and conditions, viz.:

1. That the lands so added and all buildings and improvements thereon and all buildings or improvements hereafter erected or placed thereon, and all the property real and personal of the applicants now or hereafter situate within the said Town of Cobalt shall be from time to time assessed on the same basis and at no higher value than the said lands, buildings, and property, real and personal, would have been assessed had the same remained in the Township of Coleman and the rate of taxation to be levied by the said Corporation of the Town of Cobalt on the said properties, real and personal, shall not be greater in any year than the municipal rate levied in the same year by the Township of Coleman on similar properties in the Township of Coleman.

2. That the amount payable by the applicants by way of municipal income taxes shall not at any time hereafter be greater than the amount which the applicants would be required to pay by way of municipal income tax to the Township of Coleman had the applicants remained within the jurisdiction of the Township of Coleman.

3. That the employees from time to time in the employ of the applicants shall not be assessed or called upon to pay taxes to the Town of Cobalt greater than they would have been required to pay had the territory hereby annexed remained part of the Township of Coleman.

4. Save and except whatever legal liability the properties of the applicants may be under by reason of the guarantee given by the Corporation of the Township of Coleman guaranteeing the debentures of the Corporation of the Town of Cobalt to the extent of \$75,000.00 as provided by Chap. 73 of the Statutes of Ontario, 8 Edward VII., the properties of the applicants shall be under no liability of any kind whatsoever for any municipal debentures heretofore issued by the Corporation of the Town of Cobalt for any purpose whatever.

5. The Corporation of the Town of Cobalt shall permit and allow the applicants to make a connection by means of a pipe line of not more than four inches in diameter constructed at the expense of the applicants, at the Corporation Water Works main at the head of Silver Street in the Town of Cobalt, and at the said point of connection a valve shall be constructed at the expense of the applicants making the said connection, and which shall be under the control of the Corpora-

tion of the Town of Cobalt, and in case this connection is made the applicant shall pay to the Corporation of the Town of Cobalt the sum of \$100.00 per annum, to be computed from the time of making the said connection, for the privilege of making the said connection. And the applicants shall pay to the Corporation of the Town of Cobalt the sum of \$4.00 for each day or part of a day that any water is drawn by the applicants from the Waterworks System of the Corporation of the Town of Cobalt through the said valve, but in no event shall any such water be drawn by the applicants except in case of emergency; and the applicants shall in every case of such emergency use all reasonable efforts to overcome and bring to an end the cause of such emergency.

(Seal.)

(Signed) A. B. INGRAM,
Vice-Chairman.

PROCEDURE FILE 1334. (P.F.P. 117.)

Application by The Algoma Eastern Railway Company (formerly The Manitoulin and North Shore Railway Company) under 7 Edw. VII., chap. 38, sec. 1, for approval of line for payment of subsidy under 9 Edw. VII., chap. 72, sec. 3, as amended by 1 Geo. V., chap. 17, sec. 15, subsection 1(d).

Aug. 13. Application filed.

Sept. 25. Hearing. Application granted. Order.

Nov. 28. Order issued including name of Manitoulin and North Shore Railway.

Upon reading the report and hearing the evidence of A. J. Halford, Esquire, Engineer, approving of the construction of said line of railway.

The Board hereby certifies and declares that the said The Algoma Eastern Railway Company is entitled to the payment of the Provincial Subsidy of \$5,000 per mile of its railway for a distance of ten miles from mileage 13 at the Gertrude Mine to mileage 23 at Green Hill Mine, the said subsidy having been granted to said Company by 9 Edward VII., chapter 72, section 3, and having been extended by 1 George V., chapter 17, Ontario, section 15, sub-section (1D).

(Seal.)

(Signed) JAMES LEITCH,
Chairman of the Ontario Railway and Municipal Board.

Upon reading the report and hearing the evidence of A. J. Halford, Esquire, Engineer, approving of the construction of said line of Railway.

The Board hereby certifies and declares that the said The Manitoulin and North Shore Railway Company, now The Algoma Eastern Railway Company, is entitled to the payment of the Provincial Subsidy of \$5,000 per mile of its railway for a distance of 10 miles from mileage 13 at the Gertrude Mine to mileage 23 at Green Hill Mine, the said subsidy having been granted to said company by 9 Edward VII., chapter 72, section 3, and having been extended by 1 George V., chapter 17 (Ontario), section 15, subsection (1D).

And it is ordered that the certificate and declaration made herein on Wednesday, the Twenty-fifth day of September, A.D. 1912, be and the same is hereby rescinded.

(Seal.)

(Signed) A. B. INGRAM,
Vice-Chairman of The Ontario Railway and Municipal Board

PROCEDURE FILE 1335.

Application by Messrs. Armstrong and Cook, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 30, Con. II., Township of York, now in the City of Toronto.

Aug. 22. Application and plan filed.

Sept. 6. Objection filed by City of Toronto.

Sept. 24. Appointment for hearing, Oct. 9, 2.30 p.m.

Sept. 30. Plan produced with consent of City of Toronto endorsed thereon. Plan approved and certified.

PROCEDURE FILE 1336.

Application by the City of Kingston, under 6 Edw. VII., c. 34, sec. 21, for approval of waterworks extension By-law 27 (1912), \$45,000.

Aug. 2. Application filed.

Sept. 3. Letter *re* material in support of application.

Sept. 14. Application withdrawn. (See P.F. 1362.)

PROCEDURE FILE 1337. (I.C. \$2,923.98.)

Application by the Town of Arnprior, under 8 Edw. VII., chap. 51, for validation of By-law 454 (as amended by By-law 490) (\$2,923.98 for sewer construction.)

Sept. 3. Application and material filed.

Sept. 6. Application and material considered and approved. Order.

PROCEDURE FILE 1338. (I. \$1,340.63.)

Application by the Town of Arnprior, under 8 Edw. VII., chap. 51, for validation of By-law 455 (as amended by By-law 492.) (\$1,340.63 for sewers.)

Sept. 3. Application and material filed.

Sept. 6. Application and material considered and approved. Order.

PROCEDURE FILE 1339. (I. \$1,136.87.)

Application by the Town of Arnprior, under 8 Edw. VII., chap. 51, for validation of By-law 469 (as amended by By-law 491). (\$1,136.87 for sewer.)

Sept. 3. Application and material filed.

Sept. 6. Application and material considered and approved. Order.

PROCEDURE FILE 1340. (I. \$1,173.85.)

Application by the Town of Arnprior, under 8 Edw. VII., chap. 51, for validation of By-law 470 (as amended by By-law 489) (\$1,173.85 for sewer.)

Sept. 3. Application and material filed.

Sept. 6. Application and material considered and approved. Order.

PROCEDURE FILE 1341.

Application by the Town of Arnprior, under 8 Edw. VII., chap. 51, for validation of By-law 471, consolidating Local Improvement Debenture By-laws amounting to \$2,310.72.

Sept. 3. Application and material filed.

Sept. 6. Application and material considered and approved. Order.

Upon the application of the said Corporation, and upon reading the notice of application, the statutory declarations of Daniel McLachlin, Mayor, and Trevor Hugo Grout, clerk, of the said town, the certified copy of the said By-law, and the other material filed.

The Board orders that the said By-law No. 471, intituled "By-law No. 471. By-law to consolidate the sums authorized to be borrowed by certain local improvement By-laws into one sum of \$2,310.72, and to borrow the same by the issue of debentures therefor," be and the same is hereby approved and validated.

And it is ordered, pursuant to the provisions of "The Ontario Municipal Securities Act, 1908," that a certificate be granted approving the said By-law of the Municipal Corporation of the Town of Arnprior, and declaring the same valid and binding, and that its validity is not open to question in any court, on any ground whatever, and that the debentures issued under the authority of and in accordance with the said By-law be also approved, and that the same be certified as provided by the said Act.

(Seal.)

(Signed) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1342.

Application by The Kempenfeldt Land Company, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 2, Con. III., west of Yonge Street, Township of York.

Sept. 3. Application filed.

Sept. 24. Appointment for hearing Oct. 10, 2.30 p.m.

Sept. 27. Objection filed by City of Toronto.

Oct. 10. Hearing, ordered that Second Street west of Dufferin Street on plan be continued right through plan from north to south. (See stenographer's notes.)

PROCEDURE FILE 1343.

In the matter of the application of The Title and Trust Company, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 16, Third Concession from the Bay, Township of York, and part of unopened road allowance between Lots 16 and 21.

Sept. 3. Objection filed by City of Toronto.

Sept. 17. Application and consent of City of Toronto filed.

Sept. 24. Appointment for hearing Oct. 10, 2.30 p.m.

Oct. 10. Hearing. Plan approved and certified.

PROCEDURE FILE 1344.

In the matter of the application by F. W. J. Hill and W. H. Palk, under "The City and Suburb Plans Act," for approval of Plan of subdivision of Lots 1 and 2, Plan 1217, York, Township of Etobicoke.

Aug. 12. Application filed.

Sept. 3. Objection filed by City of Toronto.

Sept. 17. Certified copy of consent of Council of Village of Mimico filed.

Sept. 19. Appointment for hearing, Oct. 9, 2.30 p.m. Board's Chambers.

Oct. 9. Hearing. Plan approved.

PROCEDURE FILE 1345.

In the matter of the application of William H. Hill, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lot 8, Con. I., from the Bay, Township of York.

Sept. 3. Objection filed by City of Toronto.

PROCEDURE FILE 1346.

The East Luther Telephone Company, Limited,

vs.

Robert Henry Edgar.

(Re Interference with Applicant's System.)

Sept. 3. Application filed.

Oct. 3. Hearing pursuant to appointment. Board directs expert, F. Dagger, to enquire and report, and reserves further directions and question of costs pending such report.

Nov. 12. Order, restraining respondent from interfering with applicant's system, and ordering intercommunication, etc.

This application having come before the Board for hearing on the Third day of October, A.D. 1912, in the presence of both parties, and upon hearing what was alleged by counsel for the respondent, and witnesses on behalf of the applicant and the respondent,

This Board was pleased to order on the Third day of October, A.D. 1912, that Francis Dagger, Esq., the telephone expert of the Board, should investigate and report to the Board upon the matters in question in this application, and that the Board reserves further directions on the question of costs.

And it appearing that upon reading the report of the said Francis Dagger, and after a personal inspection of the telephone lines of the applicant and the respondent by A. B. Ingram, Esq., Vice-Chairman of the Board, that the method of connecting the lines of the respondent's system with the subscribers' telephones of the applicant's system, is in contravention of Clause 2 of the contract between the applicant and its subscribers, which states that, "no electrical or mechanical attachments are to be made to the wires of the Association without permission."

And it further appearing that the wires of the respondent's system are in many parts of the township lying upon the fences along the highways, and further

that the said wires cross the highway at several points at such a height from the road as to cause an obstruction to vehicular traffic,

And it further appearing that the aforesaid method of erecting wires by the respondent constitute a menace to public safety, which is aggravated by the fact that in the Village of Grand Valley, the respondent's wires are in close proximity to wires carrying electrical currents of high tension, a contact with which by the respondent's wires, would endanger the lives of human beings and live stock, at those points where the respondent's wire is lying on the fences in the Townships of East Luther, West Luther, Amaranth and Garafraxa,

The Board Orders:

(1) That the respondent shall not make or continue the connections and attachments at the subscribers' stations of the applicant's given system for the purpose of transmitting conversation over the lines of the respondent's system, by means of the telephone which forms a part of the telephone system of the applicant, without the written consent of the applicant.

(2) That the telephone systems of the applicant and the respondent shall be connected in the Village of Grand Valley in such a manner as will enable inter-communication or joint operation for the transmission of messages between the subscribers of the telephone systems of the applicant and the respondent, and the public, by means of, or over the lines of the aforesaid systems, upon such terms and conditions as may be agreed upon between the applicant and respondent, or in the event of the applicant or respondent failing to agree, then upon such terms and conditions as the Board may hereafter prescribe.

(3) That in the event of the respondent continuing to provide his own operating facilities in the Village of Grand Valley, the respondent shall replace the existing switching apparatus in Grand Valley by a standard switchboard and terminal protector equipment of modern type.

(4) That the respondent shall raise all wires crossing the public highway to a height of not less than 20 ft. above the crown of the road. The wires at all crossings shall be attached to brackets on the fence side of the pole, and tied on the outside of the glass insulator. The poles on each side of the highway shall be set 5 ft. in the ground and properly guyed with steel strand guy wire, or securely braced before the wires are attached thereto.

(5) The respondent shall not erect, or permit to continue erected, any 30 ft. pole that is less than 6 in. at the top, or any 25 ft. pole that is less than 5 in. at the top, and all poles shall be set as nearly as possible a uniform length above the ground, except on highway or railway crossings, or where the uneven nature of the ground necessitates poles of different lengths, in order to maintain the wires at an even distance above the highway.

(6) The respondent shall remove all wire strung or lying upon or along the fences upon those roads not already occupied by another telephone system within the jurisdiction of the Board, and shall erect such poles as may be necessary, and attach thereto by means of brackets or cross arms, pins and insulators, such wires as he may require to furnish service to his subscribers.

(7) The respondent shall remove all wires strung upon or along fences upon those roads already occupied by the poles of another telephone system within the jurisdiction of the Board, and shall attach such wires as he may require to the poles of said other system, upon such terms and conditions as may be agreed upon between the respondent and the proprietor of said other system, or in case of

failure to agree, then upon such terms and conditions as may hereafter be prescribed by the Board.

(8) The respondent shall not hereafter permit by himself or his employees, any wire to lie or be laid upon or along the public highway or fences adjacent thereto, and no service shall be furnished to subscribers until the necessary wires have been properly attached to poles and erected in accordance with the provisions of this order, always providing that the respondent may attach the wires of his system to the poles of any other telephone system within the jurisdiction of the Board, upon such terms as may be arranged by mutual agreement, or upon such terms as may be prescribed by the Board.

And the Board further orders that the applicant and respondent shall each furnish a plan of their respective systems, showing the location in different colored ink, or pencil, of the subscribers' stations connected with each system, and the lines of each system in that portion of the territory in which the applicant and respondent are furnishing telephone service in competition with each other. Such plans shall also show the location of the subscribers' stations, and the pole lines covering the whole territory occupied by the applicant and the respondent respectively.

And the Board further orders that the applicant and the respondent, shall perform and comply with the provisions of this order within sixty days from the date hereof.

And the board makes no order as to costs, except that the applicant and the respondent shall each pay \$5.00 for law stamps on this order

(Seal.)

(Signed) A. B. INGRAM,

Vice-Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1347.

In the matter of the application of George F. Webb, under "The City and Suburbs Plans Act," for approval of plan of subdivision of part Lot No. 12, Con. III, Township of Barton, now in the City of Hamilton.

Aug. 30. Conditional approval filed by City of Hamilton.

PROCEDURE FILE 1348.

Application by Town of Fort Frances, under sec. 384 (ss. 3) of "The Consolidated Municipal Act, 1903," for one year's extension of time for issue of debentures under By-laws 197 and 198.

Sept. 4. Application and material filed.

Sept. 5. Application and material considered and approved. Order.

Upon the application of the said Corporation, and upon reading the notice of application, the affidavits of D. C. McKenzie, Mayor, and J. W. Walker, Clerk, of the said town, the copy of each of the said By-laws, and the other material filed,

The Board orders that in pursuance of the provisions of Section 384 of "The Consolidated Municipal Act, 1903," as amended by Section 5 of "The Municipal Amendment Act, 1910," the time for the issuing of the debentures authorized by By-laws 197 and 198 of the said town, intitled respectively "By-laws of Town of Fort Frances. By-law No. 197. A By-law to provide for the borrowing of the

sum of \$2,306.21 to assist in payment for the construction of a 9 inch sewer on Portage Avenue from its intersection with Church Street to its intersection with Scott Street; a nine inch sewer on Portage Avenue from its intersection with Sinclair Street to its intersection with Nelson Street; a nine inch sewer on Victoria Street from its intersection with Nelson Street to its intersection with Church Street; a 15 inch sewer on First Street from its intersection with Mowat street to its intersection with Armit Street; a 12 inch sewer on Central Avenue from its intersection with First Street to its intersection with Third Street; and a nine inch sewer on Third Street from its intersection with Central Avenue to a point opposite Lot 39, Plan M74, Block 10, to be completed as a local improvement, the said \$2,306.21 being the cost of laying down the said sewer opposite street intersections, exempt properties and flankages, and to issue debentures of the said town to raise the sum of \$2,306.21," and "By-laws of town of Fort Frances. By-law No. 198. A By-law to provide for the borrowing money, by the issue of debentures secured by local special rates on property fronting or abutting on the following streets in the Town of Fort Frances for the following sewers thereon viz: a nine inch sewer on Portage Ave. from its intersection with Church Street to its intersection with Scott Street and from its intersection with Nelson Street south to its intersection with Sinclair Street; Insert a 15 inch sewer on First Street from its intersection with Mowat Street to its intersection with Armit Street; a 12 inch sewer on Central Avenue from its intersection with First Street to its intersection with Third Street; and a 9 inch sewer on Third Street from its intersection on Central Avenue to a point opposite Lot 39, Block 10. Plan M74," as amended by By-law No. 276, intituled "By-laws of Town of Fort Frances, By-law No. 276. To amend by-laws numbers 197 and 198 of the corporation of the Town of Fort Frances," be and the same is hereby extended up to and inclusive of the Fifth day of September, 1913.

(Seal.)

(Sgd.) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1349.

Application by the Town of Fort Frances, under sec. 388b of "The Consolidated Municipal Act, 1903," for approval of interest increase (5 per cent. to 6 per cent.) By-law 276 (amending By-laws 197 and 198).

Sept. 4. Application and material filed.

Sept. 5. Application and material considered and approved. Order.

PROCEDURE FILE 1350.

Application by John T. Thompson, under "The City and Suburbs Plans Act," for approval of plan of subdivision of part of Lots 5, 7 and 8, Registered Plan 351; also Lot 1, Registered Plan 375, Township of York, County of York.

Sept. 4. Application filed.

PROCEDURE FILE 1351. (P. F. P. 112.)

Application by The Toronto Suburban Railway Company, for approval of plan, etc., of proposed extension on Annette Street, Toronto.

Sept. 4. Application and plan and profile filed.

Nov. 26. New Application, new plans, etc., filed.

Dec. 17. Hearing pursuant to Appointment. Order for approval of plans on special terms and conditions (see Court Reporter's notes)

PROCEDURE FILE 1352. (P. F. P. 113.)

Application by The Toronto Suburban Railway Company, for approval of plan, etc., of proposed extension on Pacific Ave., Toronto.

Sept. 4. Application, plan and profile filed.

Nov. 26. New application, new plan, etc., filed.

Dec. 17. Hearing pursuant to appointment. Order for approval of plans on special terms and conditions. (See Reporter's notes.)

PROCEDURE FILE 1353.

Application by M. Lynch-Staunton, under "The City and Suburbs Plans Act," for approval of plan of part Lot 14, Con. IV, Township of Barton.

Sept. 5. Application and consent of City of Hamilton and Township of Barton filed.

Sept. 7. Plan approved and certified.

PROCEDURE FILE 1354.

Application by Charles Sockett, Robert Spinks and Frederick R. Hall, under "The City and Suburbs Plans Act," for approval of plan of subdivision of part Lot 2, Con. IV. west of Yonge Street, Township of York, County of York.

Sept. 5. Application filed.

Sept. 27. Objection filed by City of Toronto. Appointment for hearing Oct. 10, 2.30 p.m.

Oct. 1. Consent of city filed. Plan approved and certified (consent of Township having been endorsed on plan).

PROCEDURE FILE 1355.

Commissioners Laird Municipal Telephone System

vs.

Township of Laird.

Sept. 6. Application filed. Appointment for hearing at Town Hall, Richards Landing, 1.30 p.m., Monday Sept. 16th, 1912. (Altered to Sept. 14th, 1912.)

Sept. 14. Hearing. Judgment for applicants.

PROCEDURE FILE 1356.

Division 107 of Amalgamated Association of Street and Electric Railway Employees of America.

vs.

Hamilton Street Railway Co.

(Application for regulation of employees' hours, under 2 Geo. V. C. 37. sec. 3.)

Sept. 6. Application filed.

PROCEDURE FILE 1357.

Application by The Dunnville Consolidated Telephone Company, Limited, under sec. 31 of "The Ontario Telephone Act," for leave to increase rural rental rates from \$12.00 to \$15.00 per annum.

Sept. 7. Application filed. Appointment for hearing 8th October, 2.30 p.m. at Board's Chambers.

Oct. 7. Hearing postponed "sine die" at request of applicants. (New application and appointment to be advertised.)

PROCEDURE FILE 1358.

Application by the Village of Port Colborne, under 6 Edw. VII., chap. 34, sec. 21, for approval of its By-law No. 10, 1912, (\$20,000 for waterworks extensions).

Sept. 9. Application and material filed.

Sept. 19. Application and material considered. Letter for compliance with sections 89 and 95 of "The Public Health Act, 1912."

Oct. 9. Further material filed.

Oct. 10. Order.

PROCEDURE FILE 1359. (P. F. P. 114).

Re general plan of lands situate within five miles of limits of City of Toronto, filed under sec. 4 of "The City and Suburbs Plans Act."

Sept. 9. General plan filed.

PROCEDURE FILE 1360.

Application by the Town of Gananoque, under Sec. 420 of "The Consolidated Municipal Act, 1903," for approval of its By-law authorizing the investment of certain portion of sinking fund created by By-law No. 543.

Sept. 10. Application and material filed.

Sept. 20. Letter for By-law providing for the investment of the sinking funds.

Oct. 3. By-law filed as directed, considered and approved. Order.

Upon the application of the said Corporation, and upon reading the notice of application filed by William Banfield Carrol, Esquire, K.C., solicitor for the applicant, the affidavits of James Donevan, Mayor, and Freeman Britton, Treasurer, of the said town, the copy of the said By-law, No. 546, and the other material filed.

The Board orders, under and in pursuance of Section 420 of "The Consolidated Municipal Act, 1903," and of Section 53 of "The Ontario Railway and Municipal Board Act, 1906," that the said By-law No. 546 of the Town of Gananoque, intituled "By-law Number 516. To authorize the investment of \$16,000.00 in debentures to be issued by the Town of Gananoque in pursuance of By-law Number 543 of the Town of Gananoque," be and the same is hereby approved.

(Seal.)

(Sgd.) JAMES LEITCH,
Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1361.

Application by Ottawa South Property Company, Limited, under "The City and Suburbs Plans Act," for approval of plan of subdivision of Lots 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23 and 25, South Glen Avenue, and Lots 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, and 26, North Grove Avenue, part of Block "H," Wyoming Park, and part of Reserve of one foot along South Grove Avenue, as shewn on Plan No. 115, and also a part of the south half of Lot Letter "L," Con. "C," Rideau Front, Township Nepean, now within limits of City of Ottawa.

Sept. 12. Consent of city filed.

Sept. 18. Plan approved and certified.

PROCEDURE FILE 1362.

Application by the City of Kingston, under sec. 38sb of "The Consolidated Municipal Act, 1903," for approval of interest increase ($4\frac{1}{2}$ per cent. to $4\frac{3}{4}$ per cent.) By-law No. 3, 1912, amending By-law No. 27 (1912). (See P. F. 1336.)

Sept. 14. Application and material filed.

Sept. 19. Application and material considered and approved.

Order approving Waterworks Extension By-law 27.

Order approving Interest Increase By-law 31.

PROCEDURE FILE 1363.

Application by the Town of Cochrane, under 2 Edw. VII., chap. 30, sec. 3, as amended by 2 Geo. V., chap. 17, sec. 35 (2) for annexation of certain portions of adjacent Townships of Lamarche and Glackmeyer, to the said town.

Sept. 14. Application and certified copy of resolution of Town Council filed.

Sept. 19. Order issued—annexation decreed.

In the matter of the application of the Municipal Corporation of the Town of Cochrane for an order annexing additional lands to the said town.

Upon the application of the said applicant made on the 13th day of September, 1912; and upon reading the resolution of the Council of the Municipal Corporation of the Town of Cochrane passed on the 10th day of September, 1912; and upon hearing what was alleged by counsel on behalf of the applicant the Municipal Corporation of the Town of Cochrane, the Board orders and proclaims that the lands and premises in the Townships of Glackmeyer and Lamarche mentioned in said resolution and being described as follows:

(Firstly), all and singular that certain parcel or tract of land and premises situate, lying and being in the First Concession of the Township of Glackmeyer, District of Nipissing and Province of Ontario, and which may be more particularly known and described as follows, viz: All the land within the boundaries of Lots 21, 22, 23 and 24 of said Concession One, except that contained in the original townsite and lying north of Sixth Street and West of First Avenue and the centre line of the Temiskaming and Northern Ontario Railway, and containing by admeasurement three hundred and forty five (345) acres, be the same more or less as shown outlined in pink on plan of Cochrane Townsite dated September 3rd, 1912, made by Sutcliffe & Neelands, O. L. S.

(Secondly), all and singular those certain parcels or tracts of land and premises situate, lying and being in the Sixth Concession of the Township of Lamarche, District of Nipissing and Province of Ontario, and which may be more particularly known and described as follows, viz:

(Firstly), commencing at the north westerly angle of Lot 7, Concession VI., Township of Lamarche, thence easterly along the northerly boundary of said Township of Lamarche 861 feet 3 inches to a point where the southerly production of the easterly limit of Twelfth Avenue intersects said northerly boundary, thence southerly along said southerly production of said easterly limit of said Twelfth Avenue 1452 feet, thence westerly and parallel to said northerly boundary of said Township of Lamarche 888 feet to the westerly limit of said Lot 7, thence northerly along said westerly limit of said Lot 7, 1,452 feet more or less to the point of commencement, and containing by admeasurement 28.7 acres of land and land under the water of Norman Lake, be the same more or less as shown outlined in pink on plan of Cochrane Townsite dated September 3rd, 1912, made by Sutcliffe & Neelands, O. L. S.

(Secondly), commencing at the north easterly angle of Lot 8, Concession VI., Township of Lamarche, thence westerly along said northerly limit of said Lot 8, 518 feet 9 inches to a point where the southerly production of the easterly limit of Eighth Avenue intersects the said northerly boundary of said Township of Lamarche, thence southerly along said easterly limit of said Eighth Avenue produced, 1,452 feet, thence easterly 492 feet to the easterly limit of said Lot 8, thence northerly along said easterly limit of said Lot 8, 1,452 feet more or less to the point of commencement, and containing by admeasurement 17.3 acres of land and land under the water of Norman Lake, be the same more or less as shown outlined in pink on plan of Cochrane Townsite, dated September 3rd, 1912, made by Sutcliffe and Neelands, O.L.S., be and the same are hereby annexed to the Town of Cochrane; the said annexation to take effect on the 1st day of October, 1912, upon and subject to the following terms and conditions, namely:—

1. The said Town of Cochrane may at any time in the year 1913 prior to the passing of a By-law striking the rate of taxation for the said year assess (subject to the rights of appeal provided by the Assessment Act) the lands included in the territory hereby annexed and the owners and occupants thereof for the year 1913 as though the same had been made in the year 1912, and the assessment so made shall be the assessment on which the taxes in the said territory for 1913 shall be collected.

(Seal.)

(Signed) JAMES LEITCH,

Chairman.

PROCEDURE FILE 1364.

Application by Zella A. MacGillivray, under "The City and Suburbs Plans Act," for approval of plan of subdivision of the west part of Lot No. 10, Con. I., west of Yonge Street.

Aug. 24. Application filed.

Sept. 14. Objection filed by City of Toronto.

Sept. 24. Appointment for hearing, Oct. 10, 2.30 p.m.

Oct. 10. Hearing. Ordered that owner close Falkirk Street on plan and substitute two streets therefor (see stenographer's notes) in order to shorten blocks.

PROCEDURE FILE 1365.

Application by The Glenavon Land Company, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Plan 1167 and Plan M-351, York.

Sept. 14. Consents of Township of York and City of Toronto filed.

Sept. 18. Plan approved and certified.

PROCEDURE FILE 1366.

Application by the Town of Haileybury, under 6 Edw. VII., chap 34, sec. 21, for approval of its By-law No. 342 (\$15,000 for waterworks purposes).

Sept. 17. Application and material filed.

Sept. 19. Application and material considered and approved. Order.

PROCEDURE FILE 1367.

Application by Waterloo Estates, Limited, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part of Lot 15, Con. 11, west of Yonge Street, County of York.

Sept. 17. Application and consent of City of Toronto filed. (Consent of Township endorsed on Plan.)

Sept. 18. Plan approved and certified.

PROCEDURE FILE 1368.

Application by the Municipal Corporation of the Township of Moore, under "The Ontario Telephone Act, 1912," for approval of its By-law No. 5, 1912, providing for the purchase by the said Township of the Telephone Plants of the St. Clair Telephone Company and the Brigden Rural Telephone Company.

Sept. 17. Application filed.

Sept. 20. Appointment for hearing, Oct. 2, 2.30 p.m.

Oct. 2. Hearing, question of reasonableness of price to be paid referred to Board's expert. Further directions and costs reserved.

Oct. 21. Order approving issued.

Oct. 29. By-law No. 14 (1912) (certified copy) amending By-law No. 5 (1912) filed.

Upon the application of the above named Corporation, in presence of Counsel for the applicants and for the St. Clair Telephone Company and the Brigden Rural Telephone Company, upon hearing what was alleged by Counsel aforesaid, this Board was pleased, on the Second day of October, A.D. 1912, to order that Francis Dagger, Esquire, the telephone expert of this Board, should investigate and report to the Board the value of the Telephone Plants of the St. Clair Telephone Company and the Brigden Rural Telephone Company, as to whether the price which the said applicants were proposing to pay for the same was fair and reasonable, together with all other facts and circumstances of which the Board should be advised, and upon reading the report of the said Francis Dagger, Esquire, bearing even date herewith,

This Board orders that the purchase of the said the St. Clair Telephone Company and the Brigden Rural Telephone Company, their plant, property and effects, under said By-law No. 5, 1912, be and the same is hereby approved.

And the Board further orders that the said By-law No. 5, 1912, of the Township of Moore, be and the same is hereby approved when and as soon as section 15 of the said By-law is repealed by the Council of the Township of Moore, and the following be enacted and passed by the said Township of Moore in substitution therefor:

Section 15.—Persons who are not subscribers in the petition or petitions for the establishment or extension of the system herein provided for, may, with the consent of the said Council, or the Commissioners to be elected by the said subscribers, connect their premises with the system on payment to the system of the annual sum of \$12.00, to be paid half-yearly, in advance, and no person connecting his premises with the system on the terms of an annual rental as aforesaid, shall have any right conferred by section 21 of "The Ontario Telephone Act" on subscribers, nor shall be liable for the payment of any portion of the debentures and interest hereinbefore provided for, but the initiating municipality may collect all rentals due and owing by him by action or otherwise according to law.

And the Board makes no order as to costs, except that the Township of Moore shall pay \$115.00, the fees and expenses of Francis Dagger, Esquire, the Board's telephone expert, and \$10.00 for stamps on this order.

(Seal.)

(Signed) JAMES LEITCH,

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1369.

Brantford

vs.

Western Counties Electric Company, Limited.

(Application as to rates charged to applicants by respondents.)

Sept. 18. Hearing pursuant to appointment. Board decides it has not jurisdiction to try application.

PROCEDURE FILE 1370.

Application by the City of Port Arthur under 8 Edw. VII., chap. 51, for validation of its By-law No. 786, authorizing the issue of debentures to the amount of \$19,000, for erection of a public market.

Sept. 11. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1371.

Application by the City of Port Arthur, under 8 Edw. VII., chap. 51, for validation of its By-law No. 787, authorizing the issue of debentures to the amount of \$7,500 to instal "Booster" Pump and accessories.

Sept. 11. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1372.

Application by the City of Port Arthur, under 8 Edw. VII., chap. 51, for validation of its By-law No. 788, authorizing the issue of debentures to the amount of \$30,000 to build and equip a fire hall.

Sept. 11. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1373.

Application by the City of Port Arthur, under 8 Edw. VII., chap. 51, for validation of its By-law No. 792, authorizing the issue of debentures to the amount of \$1,400 for certain improvements to Electric Street Railway.

Sept. 11. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1374.

Application by the City of Port Arthur, under 8 Edw. VII., chap. 51, for validation of its By-law No. 793, authorizing the issue of debentures to the amount of \$35,000 for extension and improvement of telephone system.

Sept. 11. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1375.

Application by the City of Port Arthur, under 8 Edw. VII., chap. 51, for validation of its By-law No. 794, authorizing the issue of debentures to the amount of \$15,000 for extension and improvement of its electric lighting system.

Sept. 11. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1376.

Application by the Town of Ridgetown, under 8 Edw. VII., chap. 51, for validation of By-law 566 and debentures (\$35,000 to construct waterworks).

Sept. 19. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1377. (P.F.P. 115.)

Application by Toronto Suburban Railway Company, for approval of Plan, profile and Book of Reference of Line from Norval to Georgetown (mile 21.57 to 26.59).

Sept. 19. Plan, etc., filed, and referred to Board's engineer.

Sept. 20. Board's engineer's report recommending approval filed. Plan, etc., approved and certified.

PROCEDURE FILE 1378.

Application by Dunvegan Heights, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of easterly part of Lot 1, Con. II., west of Yonge Street, Township of York, being re-subdivision of Block "B" and part of Block "A," Registered Plan 1253.

Sept. 21. Application and consent of city and township filed. Plan approved and certified.

PROCEDURE FILE 1379.

Application by Margaret Hamilton and Mary M. Playter et al., under "The City and Suburbs Plans Act" for approval of Plan of Block "A," Plan 1463, Toronto.

Sept. 21. Application filed. Consent of city endorsed on plan. Plan approved and certified.

PROCEDURE FILE 1380.

Application by The Toronto Suburban Railway Company for approval of its crossing on Dundas St., near Summerville.

Sept. 23. Application and plan, etc., filed.

Sept. 26. Plan approved and certified.

PROCEDURE FILE 1381.

Application by the Town of Pembroke, under 6 Edw. VII., chap. 34, sec. 21, for approval of its By-law No. 548 (\$8,500 for waterworks extensions).

Sept. 23. Application and material filed. Letter for reports (on Board's forms) *re* operation, etc., of waterworks system.

Oct. 26. Certificate of Provincial Board of Health filed.

PROCEDURE FILE 1382

Application by White & Co., and Lakeside Land Co., Ltd., under "The City and Suburbs Plans Act," for approval of Plan (amended) of Lot 2, B.F. Con., Township Etobicoke.

Sept. 23. Application and Consent of City and Township filed. Plan approved and certified.

PROCEDURE FILE 1383. (P.E.P. 116.)

Application by the Toronto Suburban Railway Company, for approval of revised Line through the County of Peel.

Sept. 23. Two Plans, profiles and books of reference filed and referred to Board's Engineer.

Sept. 28. Board's Engineer's Report approving of Plans received (subject to stress sheets, etc., of bridges being submitted to Board for approval). Plans approved and certified.

Oct. 7. Stress sheets of Farm undercrossing station 230, Timber Trestle Station 247 and Timber Trestle Dixie Creek Station 303+13 filed for approval, and referred to Board's Engineer.

Dec. 12. Engineer's Report filed.

Dec. 14. Plans, etc., approved and certified.

Sir,—I have examined the plans for a wooden trestle on the Toronto Suburban Railway at Stations 230 and 313 + 13 and over Dixie Creek, Station 247, and my calculations show the trestle in each case strong enough to carry Class II. loading of the Board's Specifications with the impact allowance added.

I therefore recommend these plans for your approval.

Yours truly,

(Signed) H. W. MIDDELMIST.

PROCEDURE FILE 1384.

Application by the Town of Clinton, under 6 Edw. VII., chap. 34, sec. 21, for approval of its By-law No. 9 (1912). (\$1,000 for extension to waterworks system.)

Sept. 23. Application and material filed.

Sept. 24. Letter asking for evidence that sections 89 and 95 of "The Public Health Act" have been complied with.

PROCEDURE FILE 1385.

Application by the Town of Clinton, under sections 412 and 413 of "The Consolidated Municipal Act, 1903," for approval of its By-law No. 7 (1912), reducing the rate for 1912 and certain future years imposed by By-laws 6 (1896), 7 (1898), 8 (1898), and 9 (1906).

Sept. 23. Application and material filed.

Oct. 4. Further affidavit filed as directed. Application and material considered and approved. Order.

Order.

Upon the Application of the said Corporation, and upon reading the Notice of Application filed by William Brydone, Esquire, Solicitor for the Applicants, the duplicate original of the said By-law No. 7 for 1912, the Affidavits of John Jones Gibbings, Mayor, Fred T. Jackson, Chairman of the Finance Committee of the Municipal Council, and Donald L. Macpherson, Clerk, of the said Town, and the Exhibits thereto filed.

The Board orders, under and in pursuance of sections 412 and 413 of "The Consolidated Municipal Act, 1903," that the said By-law No. 7 for 1912, intituled "By-law No. 7 for 1912 of the Town of Clinton. A By-law to reduce the rates imposed by certain By-laws of the Town of Clinton," be and the same is hereby approved.

(Seal.)

(Sgd.) JAMES LEITCH.

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1386.

Application by W. S. Fawns, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lots 2 and 3 and part of Lot 1, Plan 730, Township of Scarboro, County of York.

Sept. 24. Application filed.

PROCEDURE FILE 1387.

Application by Canadian Building and Land Association, under "The City and Suburbs Plans Act," for approval of Plan of part of Lots 33 and 34, Con. 11, Township of Saltfleet, near Hamilton.

Sept. 24. Objection filed by City of Hamilton.

Application and Plan filed.

Appointment for Hearing Oct. 10, 2.30 p.m.

Oct. 10. Hearing. Plan to be amended as to alignment of Streets so as to conform with City's General Plan.

Oct. 16. Appointment issued for Rehearing Oct. 24, 2.30 p.m., Board's Chambers.

Oct. 24. Rehearing (after hearing Counsel) adjourned to 6th Nov., 2.30 p.m., Board's Chambers.

Nov. 6. Rehearing continued. Application dismissed. Order.

Nov. 13. Notice of Motion for leave to Appeal filed.

Nov. 28. Notice of Appeal and Statement of Case filed.

Dec. 1. Reasons for Appeal filed.

Dec. 11. Appeal case settled.

Dec. 18. Amended Reasons for Appeal filed.

Order.

Upon the application of the above named Applicant for a Certificate of the approval of this Board to the said Plan; and upon hearing read the City of Hamilton's objections to the Plan, the Notice of the said Application, and the admission of service thereof upon the said City and Township Municipal Corporations, respectively, on the 30th day of August, 1912, and the declarations of J. J. McKay and J. P. MacGregor, and the consent to this Board's approval of the said Plan, by the Municipal Corporation of the Township of Saltfleet, dated the 2nd day of October, 1912, wherein the lands are situate; and upon hearing what was alleged by Counsel, as well for the City Corporation as for the Applicant;

It is Ordered that the granting of the said Certificate by this Board, to the said Applicant, be and the same is hereby refused.

And the Board makes no Order as to costs except that the Applicants shall pay \$10.00 for Law Stamp on this Order.

(Seal.)

(Sgd.) A. B. INGRAM.

Vice-Chairman.

PROCEDURE FILE 1388.

Application by Northview Land Company, Limited, under "The City and Suburbs Plans Act," for approval of Plan of Lot 11, Con. 1, East of Yonge Street, Township of York.

Sept. 25. Application and Consent of City of Toronto and Provisional Consent of Township of York filed.

PROCEDURE FILE 1389.

Application by the Town of Hanover, under 6 Edw. VII., chap. 34, sec. 21, for approval of Waterworks Extension By-law 154 (\$7,000).

Sept. 26. Application and material filed.

Nov. 12. Certificate of Provincial Board of Health filed. Order.

PROCEDURE FILE 1390.

J. B. McKague and R. B. Dawson
(Mount Pleasant Telephone Co.)

vs.

D. S. Austin,
(Murray-Brighton Telephone Co.)

(For interchange of service, etc.)

- Sept. 26. Application filed and referred to Board's Expert.
Dec. 12. Draft Agreement submitted to all parties interested.

PROCEDURE FILE 1391.

Application by City of Belleville, under 8 Edw. VII., chap. 51, for validation of By-law 1751 and Debentures (\$13,000 to improve and extend waterworks system).

Sept. 26. Application and material filed and Applicant's Counsel heard. Application granted.

Sept. 27. Order.

PROCEDURE FILE 1392.

Application by Robert Fasken, Owner, under "The City and Suburbs Plans Act," for approval of Plan of Lots 10-15, Plan M20, Land Titles, Toronto.

Sept. 28. Application filed. Plan produced with Consent of Toronto endorsed thereon. Plan approved and certified.

PROCEDURE FILE 1393.

Application by the Village of Mimico, under 6 Edw. VII., chap. 34, sec. 21, for approval of Hydro-Electric System Extension By-law No. 34 (\$5,500).

Sept. 30. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1394. (P.F.P. 118.)

Re City of Toronto and Grand Trunk Railway—Changes in King Street West Subway.

Oct. 1. Engineer's Plan and Report filed, considered and approved.

PROCEDURE FILE 1395.

Application by the Village of Marmora, under 8 Edw. VII., chap. 51, for validation of By-law No. 104, authorizing the issue of debentures to the amount of \$3,000 for erection of School House.

Oct. 2. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1396.

Application by the Town of Cochrane, under 8 Edw. VII., chap. 51, for validation of By-law 52 and Debentures, (\$30,000 for waterworks and sewers).

Oct. 3. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1397. (P.F.P. 119.)

Application by Toronto Suburban Railway Company, for approval of Etobicoke River Bridge.

Oct. 4. Application and Stress Sheets filed and referred to Board's Engineer.

Oct. 11. Engineer's Reports approving. Stress Sheets approved and certified.

Sir,—I have examined the stress sheets of the through plate girder span for the Toronto Suburban Railway over the Etobicoke river, and find the stresses correct for Class II. loading as given in your Specifications. I therefore recommend these sheets for the approval of your Board,

Yours truly,
(Sgd.) H. W. MIDDLEMIST.

PROCEDURE FILE 1398.

Application by Rosemount Gardens of Hamilton, Limited, under "The City and Suburbs Plans Act," for approval of Plan of Rosemount Gardens, in Hamilton.

Oct. 4. Application and Consent of City of Hamilton filed. Plan approved and certified.

PROCEDURE FILE 1399.

Application by the Municipal Corporation of the Town of Thornbury, under 8 Edw. VII., chap. 51, for validation of its By-law No. 17, 1912 (\$25,000 for Mill Reserve Dam, etc.).

Oct. 9. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1400.

Application by the Town of North Toronto, under "The Consolidated Municipal Act, 1903," sec. 569, ss. 5, and amendments, for approval of sewerage extension, By-law No. 1530 (\$85,000).

Oct. 10. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1401.

Application by City Estates of Canada, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of parts of Lots 11, 12 and 13, Con. 1, West of Yonge Street, Township of York.

Oct. 10. Application filed.

PROCEDURE FILE 1402.

Application by Chas. J. Miller, under "The City and Suburbs Plans Act," for approval of Plan of Subdivision of part of the South half of Lot No. 15, Junction Gore, Township of Gloucester (Ottawa).

Oct. 11. Application and Consents of City of Ottawa and Township of Gloucester filed.

Oct. 12. Plan approved and certified.

PROCEDURE FILE 1403.

Application by Messrs. Popham and Cluff, Owners, under "The City and Suburbs Plans Act," for approval of Plan of division of the rear passages North and West of Lot 1, Euclid Avenue, North, in the City of Ottawa.

Oct. 18. Application and Consent of City of Ottawa filed, and returned for correction. Plan approved and certified. (See P.F. 1415.)

PROCEDURE FILE 1404.

Application by The National Trust Company, Limited, Owners, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 21 and part of allowance for road between Lots 19 and 21, Con. III., from the Bay, York, Toronto.

Oct. 12. Application and Consent of City filed.

Oct. 15. Consent of Township of York filed. Plan approved and certified.

PROCEDURE FILE 1405.

Application by The Temiskaming Telephone Company, under sec. 34 of "The Ontario Telephone Act," for approval of Agreement with The Winlaw Telephone Company.

Oct. 14. Unsigned copy of Agreement filed.

Nov. 28. Signed copy of Agreement filed.

Dec. 7. Signed copy of Agreement considered and approved. Order.

PROCEDURE FILE 1406.

Application by the Village of Richmond Hill, under sec. 16 of "The Consolidated Municipal Act, 1903," to annex part of the Township of Markham.

Oct. 14. Petition and Blue print filed. Board appoints 30th inst., at its Chambers, for hearing.

Oct. 30. Hearing. Adjourned, pending view, to 7th November, 2.30, Board's Chambers.

Nov. 7. Adjourned Hearing. Annexation decreed.

PROCEDURE FILE 1407.

Application by the Town of North Toronto, under sec. 26 of "The Consolidated Municipal Act, 1903," for annexation to Toronto.

Oct. 15. Application filed.

Oct. 16. Appointment for Hearing, Oct. 31st, 2.30 p.m.

Oct. 31. Hearing. Annexation decreed. Order.

Order.

Upon reading the By-law of the Town of North Toronto, passed on the 9th day of January, 1911, and the Resolution passed by the Council of the City of Toronto on the 27th day of May, 1912; and upon hearing what was alleged by Counsel on behalf of the Corporation of the City of Toronto and the Town of North Toronto, and on behalf of certain ratepayers who were opposed to annexation.

The Board orders and proclaims that the Town of North Toronto be, and the same is hereby annexed to the City of Toronto, the said annexation to take effect on the 15th day of December, 1912, upon and subject to the following terms and conditions, namely:

- (a) That part of the said Town lying east of Yonge Street shall be added to Ward No. 2 of the said City; That part of the said Town lying west of Yonge Street shall be added to Ward No. 3 of the said City.

- (b) The City of Toronto may at any time in the year 1912, or in the year 1913, prior to the passing of a By-law striking the rate of taxes for the year 1913, assess (subject to the rights of appeal provided by the Assessment Act) the lands included in the territory hereby annexed, and the owners and occupants thereof for the year 1913, as though the same had been in the year 1912, and the assessment made shall be the assessment on which the taxes in the said territory for 1913 shall be collected.

(Seal.)

(Sgd.) JAMES LEITCH.

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1408. (P.F.P. 120.)

Application by The Grand Trunk Railway Company, of Canada, for approval of Plan of bridge at Queen Street, Sunnyside, Toronto.

Oct. 15. Application and Plan filed.

C.i. 19. Plan approved and certified.

PROCEDURE FILE 1409.

Application by Nicholas J. Barry, Owner, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 27, Con. I., Ottawa Front, Township Nepean, County of Carleton, according to Plan prepared by S. E. Farley, O.L.S., and dated 24th Sept., A.D. 1912.

Oct. 16. Application, consent of City of Ottawa and Affidavit as to Consent of Township of Nepean filed. Plan approved and certified.

PROCEDURE FILE 1410

R. Jewell

vs.

Township of Colborne and The Goderich Telephone Co., Ltd.

(For intercommunication, etc., between Respondents.)

Oct. 16. Application filed and referred to Board's Expert for consideration.

Dec. 23. Order issued directing intercommunication, etc., between Systems of Respondents, Order to take effect January 18th, 1913.

Order.

Whereas the Applicant has applied to the Board for an Order, requiring that the telephone systems of the Respondents shall be connected in order that there may be intercommunication between the subscribers of the respective systems of the Respondents, in accordance with the provisions of section 33 of the Ontario Telephone Act, 2 Geo. V., cap. 38.

And whereas the Board was pleased to instruct that Francis Dagger, Esquire, the telephone expert of the Board, should investigate the complaint of the applicant and meet the representatives of the Respondents for the purpose of arranging an agreement between the Respondents providing for an interchange of service over the lines of their respective systems.

And whereas the said Francis Dagger, Esquire, after having investigated the complaint of the Applicant and met the representatives of the Respondents, has reported to the Board that the Respondents have refused to enter into an agreement providing for such interchange of service.

And whereas in the opinion of the Board the lines of the telephone systems of the Respondents are situate in such proximity to one another as in the opinion of the Board to make it expedient in the public interest that they should be connected in order that there may be intercommunication between them.

The Board Orders:

- (1) That the telephone systems of the Respondents shall be connected in such manner as will enable intercommunication to be carried on between the subscribers of their respective systems and that for the purpose of establishing such connection, a metallic circuit of No. 12 galvanized iron wire shall be erected between the central office of the said, the Goderich Rural Telephone Company, Ltd., situated at Dungannon and the central telephone office of the said, the Municipal Corporation of the Township of Colborne, known as the Colborne Municipal Telephone System, located at Benmiller.
- (2) That the said, the Goderich Rural Telephone Company, Ltd., shall build at its cost that portion of the aforesaid circuit from the central office in the Village of Dungannon to a point equi-distant between Dungannon and Benmiller and that the said, the Municipal Corporation of the Township of Colborne, shall build at its cost that part of the aforesaid circuit from its central office in the Village of Benmiller to a point equi-distant between Benmiller and Dungannon.
- (3) The charge for each conversation between the subscribers of the said, the Goderich Rural Telephone Company, Ltd., whose premises are or may be located in the Townships of Colborne and East and West Wawanosh, south of Dungannon and the subscribers of the said, the Municipal Corporation of the Township of Colborne shall be 5 cents, of which amount $2\frac{1}{2}$ cents shall accrue to each of the Respondents respectively.
- (4) The charge for each conversation between the subscribers of the said, the Goderich Rural Telephone Company, whose premises are or may be located in the Township of Ashfield, and in the Townships of East and West Wawanosh north of Dungannon and the subscribers of the said, the Municipal Corporation of the Township of Colborne shall be 10 cents, of which amount, $7\frac{1}{2}$ cents shall accrue to the said, the Goderich Rural Telephone Company, Ltd., and $2\frac{1}{2}$ cents to the said, the Municipal Corporation of the Township of Colborne.

And the Board further Orders that this Order shall come into full force and effect on the 18th day of January, A.D. 1913, provided, however, that either of the Respondents may, on due notice to the other of them before that date, make application to be heard upon the subject matter of this Order.

The Board makes no order for costs except that the Respondents shall each pay \$5.00 for the stamp required for this Order.

(Seal.)

(Sgd.) A. B. INGRAM,
Vice-Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1411. (I. C. \$2,166).

Application by the Township of Dover East and West, under "The Ontario Municipal Securities Act, 1908," for an Order validating its By-law No. 18, authorizing the issue of debentures to the amount of \$2,166.00 for establishment and extension of a telephone system.

Oct. 17. Application and material filed.

Oct. 18. Letter requiring new By-law to be passed, remedying certain objections.

Nov. 7. Certified copy of By-law No. 10, filed amending By-law No. 18, (1911).

Nov. 28. Certified copy of By-law No. 10 returned for correction.

Dec. 5. Corrected and certified copy of By-law No. 10 filed.

Dec. 9. Order.

PROCEDURE FILE 1412. (I. C. \$1,800.04).

Application by the Township of Dover East and West, under "The Ontario Municipal Securities Act, 1908," for an Order validating its By-law No. 19, authorizing the issue of debentures to the amount of \$1,800.04, for establishment and extension of a telephone system.

Oct. 17. Application and material filed.

Nov. 7. Certified copy of By-law No. 11 filed, amending By-law No. 19, (1912).

Dec. 5. Application and material considered and approved. Order.

PROCEDURE FILE 1413.

Application by Messrs. S. Chandler and Bruno A. Grison, Owners, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lots 30, 31 and 32, being part of the East half of Lot 31, Con. I, Ottawa Front, Township Nepean, according to Plan prepared by Frank E. Patterson, O. L. S., and dated May 4, 1910.

Oct. 17. Application. Consent of City of Ottawa and certified copy of Consent of Township of Nepean filed. Plan approved and certified.

PROCEDURE FILE 1414.

In the matter of the Application by Samuel McCutcheon, Owner, under "The City and Suburbs Plans Act," for approval of Plan of Part Lot 12, Con. V, West of Yonge Street.

Oct. 17. Objection filed by City of Toronto. (See P. F. 1520).

PROCEDURE FILE 1415.

Application by George H. Popham and Francis H. C. Cluff, Owners, under "The City and Suburbs Plans Act," for approval of Plan of Lot I, North Euclid Avenue, Ottawa.

Oct. 18. Application and Consent of City of Ottawa filed. (See P. F. 1403). Plan approved and certified.

PROCEDURE FILE 1416.

Application by The Dawn Municipal Telephone System, under sec. 34 of "The Ontario Telephone Act," for approval of Agreement with the Inwood Rural Telephone Company, Ltd.

Oct. 18. Copy of Agreement filed and referred to Board's Expert for consideration.

PROCEDURE FILE 1417.

Application by Jane Aberdeen Waters, Herbert Willard Waters and Winnifred Florence Band, Owners, for approval, under "The City and Suburbs Plans Act," of Plan prepared by Wilbert S. Gibson, O.L.S., and dated 7th September, 1912, of subdivision of Lots 15 and 16, Registered Plan 634, York (now in the City of Toronto).

Oct. 19. Application filed (Consent of City endorsed on Plan). Plan approved and certified.

PROCEDURE FILE 1418.

Application by Eastview Land Company, Ltd., Owner, under "The City and Suburbs Plans Act," for approval of Plan, prepared by J. B. Lewis, O. L. S., of subdivision of Lots numbers 61, 62, 63, 78 79, 85, 86, 87, 88, 89, 90, 91, 92, 93 and 94 (shewn on Plan No. 101) and also Lots A, B, C, D, E, F, G, H, I, K, L and M (as shewn on Plan 119) Village of Eastview.

Oct. 19. Application and Consents of City of Ottawa and Village of Eastview filed. Plan approved and certified.

PROCEDURE FILE 1419.

Application by Abingdon Realty Company, Ltd., Owners, for approval under "The City and Suburbs Plans Act," of Plan of subdivision of part of East half of Lot No. 2, Con. III, from the Bay, Township of York.

Oct. 19. Application filed.

PROCEDURE FILE 1420.

In the matter of the Application of Ada Hesseltine Gage, Owner, for approval, under "The City and Suburbs Plans Act," of Plan of subdivision of part Lot 5, Con. I, Township of Barton, now in the City of Hamilton.

Oct. 17. Provisional Consent of City of Hamilton filed.

Oct. 21. Application filed (Consent of City of Hamilton endorsed on Plan). Plan approved and certified.

PROCEDURE FILE 1421.

Application by the City of Fort William, under "The Consolidated Municipal Act, 1903," sec. 569, ss.5, and amendments, for approval of its By-law for extension of Electric Lighting System (\$25,000).

Oct. 21. Application and material filed, considered and approved. Order.

Nov. 20. Order surrendered. (See P. F. 1475).

PROCEDURE FILE 1422.

Application by the City of Fort William, under 10 Edw VII, chap. 114, sec. 4 (Ontario) for approval of its By-law for improvements to and extension of its Telephone System, (\$25,000).

Oct. 21. Application and material filed, considered and approved. Order.

Nov. 22. Order surrendered (See P. F. 1416).

PROCEDURE FILE 1423.

Application by Percy Reid, Owner, under "The City and Suburbs Plans Act," for approval of Plan of part Lot 32, Con. II, Township of Saltfleet (Hollywood Heights) (near Hamilton).

Oct. 23. Application and Consent of City of Hamilton filed (Consent of Township of Saltfleet endorsed on Plan). Plan approved and certified.

PROCEDURE FILE 1424.

Application by James Robert Gifford and William John Callow, Owners, for approval, under "The City and Suburbs Plans Act," of Plan of subdivision of parts Lots 15 and 16, Plan 435, York.

Oct. 24. Application and Consent of City filed (Consent of Township endorsed on Plan). Plan approved and certified.

PROCEDURE FILE 1425. (P. F. P. 121).

Application by The Toronto Suburban Railway Company, under sec. 59 of The Ontario Railway Act, for approval of Plan, profile and Book of Reference of proposed Line from mileage 0.00 to mileage 5.00 in the County of York (from Lambton to Summerville).

Oct. 24. Plan, profile and Book of Reference filed, approved and certified.

PROCEDURE FILE 1426.

Application by The Eastview Land Co., Owners, for approval, under "The City and Suburbs Plans Act," of Plan of subdivision of part Block 26, MacKay Estate (not shewn on Plan No. 74) and Lot 11, East Champlain Avenue, and Lots 21 and 22, North Beechwood Avenue (as shewn on said Plan No. 74). Ottawa.

Oct. 24. Application and Consent of City of Ottawa filed. Plan approved and certified.

PROCEDURE FILE 1427.

Application by The Eastview Land Company, Ltd., for approval, under "The City and Suburbs Plans Act," of plan of subdivision of parts Block 20, MacKay Estate (as shewn on Plan No. 70) and also the northerly 50 ft. of Lot No. 20, North Beechwood Avenue (as shewn on Plan No. 74) Ottawa, and also parts of Lot No. 4, Junction Gore, Township Gloucester, now within the limits of the City of Ottawa.

Oct. 24. Application and Consent of City of Ottawa filed. Plan approved and certified.

PROCEDURE FILE 1428.

Application by the Corporation of the Town of Oakville, under "The Consolidated Municipal Act, 1903," sec. 569, ss. 5, and amendments, for approval of By-law No. 437 (\$20,000 for extensions and improvements to its Waterworks and Electric Light Systems).

Oct. 24. Application and material filed.

Oct. 28. Application and material considered. Letter for further material.

Nov. 6. Further material filed, considered and approved. Order.

PROCEDURE FILE 1429.

Application by James Harris, J. S. Milligan, H. C. Russell and D. M. Johnston, Owners, for approval, under "The City and Suburbs Plans Act," of parts Plan 110, York, and parts of Plans 685 and 764, Toronto, according to Plan prepared by Messrs. Speight and Van Nostrand, O. L. S., dated 14th May, 1912.

Oct. 25. Application and Consent of City of Toronto filed. Plan approved and certified.

PROCEDURE FILE 1430.

Application by W. W. Gammage, et al., for annexation to City of London of south halves Lots 11 and 12, Con. II, Township of London (including road allowance).

Oct. 26. Petition and Resolution of Expediency filed.

Oct. 30. Appointment for Hearing 2.30 p.m., Nov. 15, City Hall, London.

Nov. 15. Hearing pursuant to Appointment. Petition allowed as sufficient. Annexation decreed.

Dec. 19. Order.

Upon the application of the said Applicants made upon the twenty-sixth day of October, A.D. 1912, and upon reading the resolution of the Council of the Corporation of the City of London passed on the twenty-first day of October, A.D. 1912, the Petition of the said Applicants, the Statutory Declarations filed in support thereof, and upon hearing what was alleged by Counsel on behalf of the Applicants, the Corporation of the City of London, and the Corporation of the Township of London, and Judgment having been reserved until this day,

The Board orders and proclaims that the lands and premises in the said Township of London mentioned in the Petition filed, and being described as that portion of the Township of London lying North and East of the said City of London, and more particularly described as follows, that is to say: The south halves of Lots Numbers Eleven and Twelve in Concession Two of the Township of London, including the road allowance South and West of the said South halves, be and the same are hereby annexed to the City of London, the said annexation to take effect on the Twenty-first day of December, A.D. 1912, upon and subject to the following terms and conditions, namely:—

1. That for a period of fifteen years from the date of the annexation, the said lands so annexed and the buildings then erected thereon shall not be assessed for any greater amount than they were assessed at by the Assessor for the said Township of London for the year 1911.

2. That the Assessment Commissioner of the City of London shall be at liberty to add to such assessment the value of any and all buildings, erections or structures after the date of the said annexation built, erected or made, or any improvements done upon the said lands or any part or sub-division of the same and the value of all plant, machinery and other property thereon or annexed thereto not exempt from taxation, subject, however, to the right of appeal as provided by the Assessment Act and Amending Acts.

3. That provided the said lands, buildings, improvements, plant, machinery and property are used only for manufacturing purposes, it or they shall be subject to no greater assessment for the said period of fifteen years than the said lands are at present assessed for by the said Township of London.

4. That the rate of taxation to be paid by the ratepayers of the annexed district shall be fixed at the rate of fifteen mills on the dollar for a period of fifteen years succeeding the date of annexation.

5. That it shall be the duty of the Water Commissioners for the City of London to cause to be laid water-mains for fire and domestic purposes, and to extend the street lighting system of the City upon such streets and portions of streets within such limit or limits of the annexed district as will, in their opinion, adequately protect and meet the requirements of the property of the said annexed district.

6. That the Debenture Debt of the said portion of the said Township of London hereinbefore described shall be assumed by the said City of London as amalgamated including the share, if any, of the said Township of London of the Debt of the County of Middlesex, and the Corporation of the City of London shall be entitled to receive from and be repaid by the said County of Middlesex, the value of the interest which the said Township has, at the time of the said annexation, in the property or assets of the County of Middlesex.

7. The said annexed district shall be known as part of Ward Number Five of the said City.

8. That for registry purposes the said district so to be annexed shall be known as the Registry district of East London and the Registrar for the North and East Ridings of the County of Middlesex shall be the Registrar thereof.

9. That the population of the City of London and the said district to be annexed is over Fifty thousand (50,000).

10. The Board of Assessors of the City of London may at any time in the year 1912 or in the year 1913, prior to the passing of a By-law of the Council of the Corporation of the City of London striking the rate of taxes for the year 1913, assess (subject to the rights of appeal provided by the Assessment Act and Amending Acts, and subject to the terms and conditions hereinbefore set out) the lands included in the district hereby annexed, and the owners and occupants thereof for the year 1913, as though the same had been made in the year 1912, and the assessment so made shall be the assessment on which the taxes in the said district for 1913 shall be collected.

(Seal)

(Signed) A. B. INGRAM,
Vice-Chairman.

PROCEDURE FILE 1431.

The Village of Blyth

vs.

The Corporation of the Township of McKillop,
The Corporation of the Township of Tuckersmith,
The Bell Telephone Company of Canada, Ltd., and
The McKillop, Logan and Hibbert Telephone Company, Ltd.
(For Intercommunication, etc.)

Oct. 29. Application filed.

Dec. 3. Appointment for Hearing Tuesday, Dec. 17, 1912, at the Board's Chambers, Legislative Buildings, Toronto, 2.30 p.m.

Dec. 11. Hearing adjourned 'sine die' at request of Counsel.

PROCEDURE FILE 1432.

BETWEEN:

The Canadian Machine Telephone Company, Ltd.,
Applicants,

and

The Princeton and Drumbo Telephone Company, Ltd.,
Respondents.

(Application under sec. 33 of "The Ontario Telephone Act" (2 Geo. V, c. 58) for intercommunication, etc.)

Oct. 30. Application, Plan and Agreement filed.

Nov. 18. Agreement signed by Respondent filed and Application for approval of same.

Dec. 16. Order approving Agreement.

Upon the application of the above named Applicant, and upon reading the Agreement between the Applicant and the Respondent, dated the Sixteenth Day of November, A.D. 1912, and the maps and other material filed.

The Board orders that the said Agreement (save and except in so far as it concerns or relates to charges, rates, rents or tolls) be, and the same is hereby approved, under and in pursuance of Section 34 of The Ontario Telephone Act, provided that the Board may at any time hereafter, of its own motion, or upon any application or complaint, rescind this Order, and withdraw its approval of the above mentioned Agreement, and require the same to be altered, amended, varied or otherwise changed or modified, as to the said Board may seem requisite or proper.

And the Board further orders and directs (subject to the provisions of the preceding clause), that the said Agreement be and the same is hereby incorporated as a part of this Order, and that the Applicant and Respondent shall observe and fulfill the conditions provided for in the said Agreement.

And the Board further orders and directs that the interchange of service provided for in the said Agreement shall be established and in operation within thirty days from the date hereof,

And the Board makes no Order for costs, except that the Applicant and the Respondent shall each pay \$5.00 for the Law Stamps required for this Order.

(Seal)

(Signed) D. M. McINTYRE,

Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1433.

Application by George Angus, et al., for annexation to the City of London of parts Township of London.

Oct. 26. Petition and Resolution of Expediency by London City Council filed.

Oct. 30. Appointment for Hearing Nov. 15th, 2.30 p.m., City Hall, London.

Nov. 15. Hearing pursuant to Appointment. Petition referred for scrutiny to City Clerk, of London, and Township Clerk, Township of London, and Hearing adjourned pending their Report.

Dec. 12. Hearing continued pursuant to arrangement with parties and adjourned to Dec. 18th, 2.30 p.m., both Township and City, and other parties interested, to put in further evidence as to Signatories to Petition for annexation.

Oct. 18. Hearing continued and concluded. Judgment reserved.

Oct. 19. Judgment decreeing annexation.

Upon the application of the said Applicants made upon the twenty-sixth day of October, A.D. 1912, and upon reading the resolution of the Council of the Corporation of the City of London passed on the seventh day of October, A.D. 1912, the Petition of the said Applicants, the Statutory Declarations filed in support thereof, and upon hearing what was alleged by Counsel on behalf of the Applicants, the Corporation of the City of London and the Corporation of the Township of London, and judgment having been reserved until this day.

The Board orders and proclaims that the lands and premises in the said Township of London mentioned in the Petition filed, and being described as that portion of the said Township of London lying East and South of the said City of London, and more particularly described as follows, that is to say: Commencing on the Southerly limit of Oxford Street, otherwise known as the allowance for road between Concessions One and Two of the said Township of London and on the present Easterly limit of the said City of London; thence Easterly along said Southerly limit of Oxford Street or the said allowance for road, to the Easterly limit of Lot Number Eight in the First Concession of the said Township of London; thence Southerly and along the limit between Lots numbers Seven and Eight in Concessions One and "C" of the said Township of London, to the Northerly limit of the allowance for road between Concessions "C" and "B" of the said Township; thence Westerly along the Northerly limit of the said last mentioned allowance to the Westerly limit of the allowance for road between Lots Numbers Twelve and Thirteen in the said Township, thence Southerly along the said Westerly limit of the said road allowance to the River Thames; thence Easterly and Southerly following the said River Thames to the Westerly limit of the allowance for road between Lots Numbers Eight and Nine in Concessions "A" and "B" of the said Township; and thence Northerly along

the Western limit of the said last mentioned road to the Northern Limit of the allowance for road between said Concessions "B" and "C," be and the same are hereby annexed to the City of London, the said annexation to take effect on the Twenty-first day of December, A. D. 1912, upon and subject to the following terms and conditions, namely:—

1. That for a period of fifteen years from the date of the annexation, the said lands so annexed and the buildings then erected thereon shall not be assessed for any greater amount than they were assessed at by the Assessor for the said Township of London for the year 1911.

2. That the Assessment Commissioner of the City of London shall be at liberty to add to such assessment the value of any and all buildings, erections or structures after the date of the said annexation built, erected or made or any improvements done upon the said lands or any part or sub-division of the same and the value of all plant, machinery and other property thereon or annexed thereto not exempt from taxation, subject, however, to the right of appeal as provided by the Assessment Act and Amending Acts.

3. That provided the said lands, buildings, improvements, plant, machinery and property are used only for manufacturing purposes, it or they shall be subject to no greater assessment for the said period of fifteen years than the said lands are at present assessed for by the said Township of London.

4. That the rate of taxation to be paid by the ratepayers of the annexed district shall be fixed at the rate of fifteen mills on the dollar for a period of fifteen years succeeding the date of annexation.

5. That it shall be the duty of the Water Commissioners for the City of London to cause to be laid water-mains for fire and domestic purposes, and to extend the street lighting system of the City upon such streets and portions of streets within such limit or limits of the annexed district as will, in their opinion, adequately protect and meet the requirements of the property of the said annexed district.

6. That the Debenture Debt of the said portion of the said Township of London hereinbefore described shall be assumed by the said City of London as amalgamated including the share, if any, of the said Township of London of the debt of the County of Middlesex, and the Corporation of the City of London shall be entitled to receive from and be repaid by the said County of Middlesex the value of the interest which the said Township has, at the time of the said annexation, in the property or assets of the County of Middlesex.

7. The said annexed district shall be known as part of Ward Number Five of the said City.

8. That the said Council, in as far as it has power so to do, will demand an extension of the Street Railway service on what is known as the Hamilton Road towards the Eastern limit of the annexed district at the earliest date possible.

9. That for registry purposes the said district so to be annexed shall be known as the registry district of East London and the Registrar for the North and East Ridings of the County of Middlesex shall be the Registrar thereof.

10. That the population of the City of London and the said district to be annexed is over Fifty thousand (50,000).

11. The Board of Assessors of the City of London may at any time in the year 1912 or in the year 1913, prior to the passing of a By-law of the Council of the Corporation of the City of London striking the rate of taxes for the year 1913, assess (subject to the rights of appeal provided by the Assessment Act

and Amending Acts, and subject to the terms and conditions hereinbefore set out) the lands included in the district hereby annexed, and the owners and occupants thereof for the year 1913, as though the same had been made in the year 1912, and the assessment so made shall be the assessment on which the taxes in the said district for 1913 shall be collected.

(Seal)

(Signed) A. B. INGRAM,
Vice-Chairman.

PROCEDURE FILE 1434.

Application by D. Sutherland, et al., for annexation to Toronto of that portion of Township of York known as Moore Park.

Oct. 30. Petition and declaration of expediency by Toronto City Council filed. Appointment for hearing Nov. 19, 2.30 p.m., Board's Chambers.

Nov. 19. Petition Nos. 1, 2, 3, 4 and 5 filed. Further petitions filed for annexation. Hearing. Annexation decreed. Order.

Upon the application of the above named applicants, and upon reading the resolution of the Corporation of the City of Toronto, passed on the Twenty-second day of July, 1912; the petition of the said applicants; the affidavit of Robert Davidson Hume for the applicants; and copy of plan of lands proposed to be annexed being produced; and upon hearing what was alleged by counsel on behalf of the applicants, the Corporation of the City of Toronto, and the Corporation of the Township of York.

The Board orders and proclaims that the lands and premises in the Township of York mentioned in the said petition and being described as bounded on the south and west by the City of Toronto, on the east by the right of way of the Belt Line Railway, and on the north by the Toronto General Burying Grounds Cemetery, and commonly known as Moore Park, be and the same are hereby annexed to the City of Toronto; the said annexation to take place on the Sixteenth day of December, A.D. 1912, on and subject to the following terms and conditions, namely:

(1) The said lands shall be added to Ward No. 2.

(2) That the taxes and rates imposed for the year 1912, or any prior year, upon any of the lands included in the territory hereby annexed, which shall not have been collected before the Sixteenth day of December, 1912, may be collected by and shall belong to the Township of York, and all right to collect the same including distress for non-payment, or, if necessary, the sale of the said lands, or any of them, shall remain in the said Township as though this order had not been made.

(3) The City of Toronto may at any time in the year 1912, or in the year 1913, prior to the passing of a by-law striking the rate of taxes for the year 1913 assess (subject to the rights of appeal provided by the Assessment Act) the lands included in the territory hereby annexed, and the owners and occupants thereof for the year 1913, as though the same had been made in the year 1912, and the assessment made shall be the assessment on which the taxes in the said territory for 1913 shall be collected.

(Seal.)

(Signed) A. B. INGRAM,
Vice-Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1435.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No. —, amending By-law No. 1179 by increasing the rate of interest on debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1436.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No. . ., amending By-law No. 1184, by increasing the rate of interest on debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1437.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No. —, amending By-law No. 1189, by increasing the rate of interest on debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered and approved. Order.

Dec. 27. Order of Nov. 1 rescinded. Order.

PROCEDURE FILE 1438.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No. —, amending By-law No. 1190, by increasing the rate of interest on debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered, and approved. Order.

Dec. 27. Order of Nov. 1 rescinded. Order.

PROCEDURE FILE 1439.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No. —, amending By-law No. 1191, by increasing the rate of interest on debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1440.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No. —, amending By-law No. 1192, by increasing the rate of interest on debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1441.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No. —, amending By-law No. 1193, by increasing the rate of interest on debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered, and approved. Order.

Dec. 27. Order of Nov. 1 rescinded. Order.

PROCEDURE FILE 1442.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No. —, amending By-law No. 1194, by increasing the rate of interest on debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1443.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No. —, amending By-law No. 1195, by increasing the rate of interest on debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1444.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No.—, amending By-law No. 1196, by increasing the rate of interest on the debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1445.

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No.—, amending By-law No. 1197, by increasing the rate of interest on the debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1446

Application by the City of Fort William, under sec. 388B of "The Consolidated Municipal Act, 1903," for approval of its By-law No.—, amending By-law No. 1207, by increasing the rate of interest on the debentures authorized thereby from $4\frac{1}{2}$ to 5 per cent.

Nov. 1. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1447.

Application by the City of Kingston, under sec. 569, ss. 5, of "The Consolidated Municipal Act, 1903," and amendments, for approval of its By-law No. 34 (1912), (\$50,000 for extensions and improvements to the City Gas and Electric Light and Power Works).

Nov. 2. Application and material filed.

Nov. 4. Application and material considered and approved. Order.

PROCEDURE FILE 1448. (I.N.C.)

Application by the Town of Haileybury, under "The Ontario Municipal Securities Act, 1908," for validation of its By-law No. 351 and debentures thereunder (\$20,000 for waterworks improvements).

Nov. 4. Application and material filed.

Nov. 23. Application dismissed.

PROCEDURE FILE 1449.

Application by the Town of Haileybury, under ss. 2 of sec. 96 of "The Public Health Act," for approval of By-law No. 351 (\$20,000 for waterworks improvements).

Nov. 4. Application and material filed.

Dec. 9. Application and material considered and dismissed, vote of electors being required in this case unless applicants can conform with sec. 569 (ss. 5) of "The Consolidated Municipal Act, 1903."

PROCEDURE FILE 1450.

Application by James S. Robertson, owner, under "The City and Suburbs Plans Act," for approval of plan of the south-west part of Lot 1, Con. II., Township Barton (near Hamilton).

Nov. 4. Application and consent of city and township filed. Plan approved and certified.

PROCEDURE FILE 1451.

In the matter of the application of H. J. Petrie, under "The City and Suburbs Plans Act," for approval of plan of the south-west part of Lot No. 1, Con. II., Township of Barton.

Nov. 6. Consent of City of Hamilton filed. (See P.F. 1450). Name herein of owner given in error by City of Hamilton should be Jas. S. Robertson.

PROCEDURE FILE 1452.

In the matter of the Application of J. Walter Gage, under "The City and Suburbs Plans Act," for approval of plan of part Lot 5, Con. III., Township of Barton, now in the City of Hamilton.

Nov. 6. Provisional consent of City of Hamilton filed.

PROCEDURE FILE 1453.

Application by F. K. Sheppard, owner, under "The City and Suburbs Plans Act," for approval of plan of Lots 15 and 16, and part Lot 17, Plan 415E, Edgewood Crescent, Toronto, according to plan prepared by W. A. and W. H. Brown, O.L.S., dated Oct. 24th, 1912.

Nov. 6. Application filed. Consent of City of Toronto endorsed on Plan. Plan approved and certified.

PROCEDURE FILE 1454.

In the matter of the application by the Guelph Radial Railway, for approval of plan of proposed extension on York Road.

Nov. 6. Application and copies of plan filed, considered, and approved. Plan certified.

PROCEDURE FILE 1455.

Application by the Town of Prescott, under 6 Edw. VII., chap. 34, sec. 1, for annexation of Grand Trunk Railway Company's lands (part Lot 37, and Commons Lot, First Concession, Township Edwardsburg, and Commons Lot "A," First Concession, Township Augusta).

Nov. 7. Petition and resolution of expediency filed. (Board has not jurisdiction.)

PROCEDURE FILE 1456.

Application by F. X. Laderoute, owner, under "The City and Suburbs Plans Act," for approval of plan of part east half Lot No. 30, Con. II., Ottawa Front, Township Nepean, according to plan prepared by Edward J. Raniboth, O.L.S., and dated Oct. 10th, 1912.

Nov. 7. Application, consent of City of Ottawa, and consent of Township of Nepean filed. Plan approved and certified.

PROCEDURE FILE 1457.

Application by Annie B. Johnston and Rachel Ling, owners, under "The City and Suburbs Plans Act," for approval of plan of part Lots 10 and 11, Plan 354, York.

Nov. 7. Application filed. Appointment for hearing November 19th, 2.30 p.m.

Nov. 19. Hearing, plan to be amended by making street at west side of lands 16½ feet wider and to be approved by Board when approved by Township of York.

PROCEDURE FILE 1458.

Application by Edward Hardy and Mary Jane Smith, administratrix of the estate of Geo. H. Marshall, owners, for approval, under "The City and Suburbs Plans Act," of part Lot 1, Plan 285, York County, according to plan prepared by W. A. and W. H. Brown, O.L.S., dated Nov. 5th, 1912.

Nov. 8. Application and consent of City of Toronto filed. Consent of Township of York endorsed on Plan. Plan approved and certified.

PROCEDURE FILE 1459.

Application by the Town of North Bay, for annexation of part Township of Widdifield.

Nov. 13. Petition and surveyor's plan filed.

Nov. 18. Petition (and surveyor's plan considered. Letter for further material.

PROCEDURE FILE 1460.

Application by John Miles, owner, under "The City and Suburbs Plans Act." for approval of Plan of subdivision of part Lot "G," Plan 1043, Township of Etobicoke and County of York, according to plan prepared by W. A. and W. H. Browne, O.L.S., and dated Aug. 30th, 1912.

Nov. 13. Application, with admissions of service and consent of City of Toronto filed. Plan approved and certified.

PROCEDURE FILE 1461.

Toronto

vs.

Toronto Railway Company.

(*Re* Operation Queen East Stub.)

Nov. 13. Hearing pursuant to appointment. Toronto and York Radial Railway Company made parties respondent. Hearing adjourned to 14th November, 4 p.m.

Application filed.

Nov. 14. Hearing continued. Interim order made for operation of the Stub Line. Hearing adjourned to Jan. 15th, 1913, at 2.30 p.m.

Upon the application of the above named applicants, as set forth in the Notice of Application filed, and

Upon the application of the above named respondents for an order adding The Toronto and York Radial Railway Company as a party hereto and substituting the said Toronto and York Radial Railway Company as respondents in the place of the respondents above named, in the presence of the applicants and respondents, and of the Toronto and York Radial Railway Company, and

Upon hearing the evidence adduced on behalf of the said parties respectively, and

Upon hearing Counsel for the applicants and respondents, and for the said Toronto and York Radial Railway Company:

1. It is ordered that the Toronto and York Radial Railway Company be added as parties respondent to these proceedings.

2. This Board determines, orders, and declares that this Board will not, at the present time, make any Order or Declaration as to the rights, duties, or arrangements as between themselves of The Toronto Railway Company and The Toronto and York Radial Railway Company with regard to the operation of the said line of railway, or as to the respective rights and duties of the said Railway Companies and of the said applicants with regard thereto.

3. And this Board doth further determine, order, and declare without further inquiry into the relations or arrangements between The Toronto Railway Company and The Toronto and York Radial Railway Company that the said Railway Companies, or either of them, shall continue to operate the said line of railway with a service substantially as at present during the period of Ninety (90) days from the date of this order, upon the terms of the letter of the 6th November, 1912, from the General Manager of the respondents to the Mayor of the City of Toronto, which said letter is referred to in the third paragraph of the said application, and copy of which was filed therewith.

4. And this Board doth further determine, order and declare that the applicants shall pay to the respondents the amount due in respect of the operation of the said line as aforesaid, in accordance with the terms of the said letter, monthly; each month's service to be paid within ten (10) days after the receipt of detailed account of the amount due.

5. And this Board doth reserve further directions and the question of costs.

(Seal.)

(Signed) A. B. INGRAM,

Vice-Chairman of The Ontario Railway and Municipal Board.

PROCEDURE FILE 1462.

Re City of Toronto and Toronto and York Radial Railway Co.

(Arbitration Scarborough Line, East Toronto.)

Nov. 13. Hearing pursuant to appointment, adjourned *sine die* on request of Counsel on terms of Memo. dated Nov. 12th, 1912, filed by Counsel for City.

Nov. 14. Hearing continued; Board makes interim order for continuation of service for 90 days on terms of R. J. Fleming's letter to Mayor of Toronto, dated Nov. 6th, 1912. Hearing adjourned to Jan. 15th, 1913, at 2.30 p.m.

PROCEDURE FILE 1463. (P.F.P. 122.)

Application by Toronto Suburban Railway Company for approval of stress sheets of 24 ft. 1 in. bridge for creek at mileage 3.10 from Church St., Weston.

Nov. 14. Stress sheet filed and referred to Board's engineer.

Nov. 19. Plans, etc., approved and certified.

Sir.—I have examined the plans of the steel bridge over the creek at mileage 3.10 from Weston for the Toronto Suburban Railway, handed to me by your Board, and find the calculations thereon correct for Class H. of your loading. I therefore recommend these plans for approval.

Yours truly,

(Signed) H. W. MIDDLEMIST.

PROCEDURE FILE 1464.

Application by The Urban and Rural Telephone Company, Ltd., for leave to furnish telephone service to W. J. Smith, and others, resident in the Township of Aldborough.

Nov. 15. Application and contracts filed and referred to Board's expert for consideration.

PROCEDURE FILE 1465. (I.C. \$49,207.86.)

Application by the Town of Waterloo, under "The Ontario Municipal Securities Act, 1908," for validation of its By-law No. 446 (\$49,207.86 for construction of a bithulithic pavement on King Street, from William to Yonge Street.

Nov. 15. Application and material filed.

PROCEDURE FILE 1466. (I.C. \$3,890.37.)

Application by the Town of Waterloo, under "The Ontario Municipal Securities Act, 1908," for validation of its By-law No. 447 (\$3,890.37 for construction of certain cement sidewalks laid down in said town during the year 1911).

Nov. 15. Application and material filed.

Nov. 27. Application and material considered and approved. Order.

PROCEDURE FILE 1467. (I.C. \$523.68.)

Application by the Town of Waterloo, under "The Ontario Municipal Securities Act, 1908," for validation of its By-law No. 448 (\$523.68 for construction of cement walk on east side of Foundry Street from Park Street to William Street).

Nov. 15. Application and material filed.

Nov. 27. Application and material considered. Order refused owing to omission of publication of notice required by sec 11 of "The Local Improvement Act" (1 Geo. V., chap. 58).

PROCEDURE FILE 1468. (P.F.P. 123.)

Application by The Toronto Suburban Railway Company, for approval of Plan of Crossing of Albion Road, Lot 11, Con. VI., Township of York (Weston and Woodbridge Line).

Nov. 15. Application, plan and profile filed and referred to Board's engineer.

Nov. 19. Plans, etc., approved and certified.

PROCEDURE FILE 1469.

Application by the Town of Wingham, under sec. 569, ss. 5, of "The Consolidated Municipal Act, 1903," and amendments, for approval of its By-law No. 658 (1912) (\$3,126.73 for extension of waterworks).

Nov. 16. Application and material filed.

Nov. 18. Application and material considered. Letter asking for certificate of Provincial Board of Health.

PROCEDURE FILE 1470.

Application by residents of Bowmanville and vicinity, under section 36 of "The Ontario Telephone Act," for Telephone Service from the Port Hope Telephone Company, by establishment of a public pay-station in Bowmanville.

Nov. 18. Petition filed.

Nov. 26. Inquiry and inspection by Vice-Chairman and Board's expert, company to draft agreement indemnifying the town against liability for damage, and municipality to bring By-law before Council granting necessary promise to company upon terms of proposed agreement.

PROCEDURE FILE 1471.

Application by The Title and Trust Company, owner, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Block "P," Plan 1278 (York), and part Lot 5, Plan 413 (York) Toronto, according to plan prepared by Messrs. Speight and Van Nostrand, dated Sept. 5th, 1912.

Nov. 19. Application filed. (Consent of city endorsed on plan.) Plan approved and certified.

PROCEDURE FILE 1472.

Application by The Title and Trust Company, owner, for approval, under "The City and Suburbs Plans Act," of Plan of subdivision of parts Registered Plans 413, 1278, and 451E. Toronto, according to plan prepared by Messrs. Speight and Van Nostrand, dated Nov. 4th, 1912.

Nov. 19. Application filed. (Consent of city endorsed on plan.) Plan approved and certified.

PROCEDURE FILE 1473. (I.C. \$40,000.)

Application by the Town of Wallaceburg, under "The Ontario Municipal Securities Act, 1908," for an order validating its By-law No. 242 and the individual By-laws therein referred to (\$40,000 for local improvements).

Nov. 19. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1474. (I.C. \$6,242.28.)

Application by the Village of Lanark, under "The Ontario Municipal Securities Act, 1908," for an order validating its By-law No. 496 (\$6,242.28 for construction of granolithic sidewalks).

Nov. 19. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1475.

Application by the City of Fort William, under sec. 569, ss. 5, of "The Consolidated Municipal Act, 1903," for approval of its By-law for extension of Electric Lighting System (\$25,000).

Nov. 20. Application and material filed. (For further material see P.F. 1421.) Application considered and approved. Order.

PROCEDURE FILE 1476.

Application by the City of Fort William, under 10 Edw. VII., chap. 114, sec. 4 (Ontario) for approval of its By-law for improvements to and extension of its telephone system (\$25,000).

Nov. 20. Application and material filed. (For further material see P.F. 1422). Application considered and approved. Order.

PROCEDURE FILE 1477.

Application by the Town of Milton, under sec. 569, ss. 5, of "The Consolidated Municipal Act, 1903," for approval of its By-law No. 466 (\$20,000 for extension of its electrical system).

Nov. 25. Application and material filed.

Nov. 28. Application and material considered and approved. Order.

PROCEDURE FILE 1478.

Application by the Town of Sandwich, under "The Ontario Municipal Securities Act, 1908," for an order validating its By-law No. 458, and the debentures thereunder (\$12,498.14 for sewerage purposes).

Nov. 25. Application and material filed.

Dec. 4. Letter for certificate of Provincial Board of Health.

Dec. 5. Letter for further material.

Dec. 7. Certified copy of certificate of Provincial Board of Health filed.

Dec. 30. Further material filed as requested.

PROCEDURE FILE 1479. (P.F.P. 124.)

Application by The Toronto Suburban Railway Company, for approval of Plan for reinforced concrete bridge for subway under Dundas Street at mile 5.16 from Lambton.

Nov. 25. Plans filed and referred to Board's engineer.

Dec. 10. Board's engineer's report filed. Plans, etc., approved and certified.

Sir,—I have examined the plans of the Dundas Street Subway for the Toronto Suburban Railway, and find the stresses sufficient to carry Class C loading as set forth in the general specifications for steel highway bridges required by the Municipal Act, 1911, viz., a uniform live load of 135 lbs. per square foot of roadway, or a concentrated live load of 20 tons passing over any portion of the bridge on two axles at 10 feet centres and 6 feet gauge, two-thirds of the load to be carried on the rear axles, with the impact allowance added. Also for a concentrated load of 4000 lbs., midway between stringers, on the concrete floor slab.

The stringers required for this loading will be 15 inch I beams at 60 lbs., as shown on the plans, spaced not over 3 feet centres.

I therefore recommend these plans for your approval.

Yours truly,

(Signed) H. W. MIDDLEMIST.

PROCEDURE FILE 1480.

Application by Kalmar Heights Land Co., under "The City and Suburbs Plans Act," for approval of plan of subdivision of Lots 2 and 3, and part Lot 1, Plan 730, Township of Scarboro, County of York.

Nov. 26. Application, consent of City of Toronto and consent of Township of Scarboro filed. Plan approved and certified.

PROCEDURE FILE 1481.

Application by Florence C. Bansley, owner, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 13, Registered Plan 354, County of York.

Nov. 28. Application and consent of city filed. (Consent of Township endorsed on plan).

Nov. 29. Plan approved and certified.

PROCEDURE FILE 1482.

In the matter of the application of Wm. A. Thorpe, Wm. C. Thompson, John Faulknor, and Louis W. Stuart, owners, under "The City and Suburbs Plans Act," for approval of Plan of part Lot 21, Broken Front Concession, Township of Saltfleet.

Nov. 28. Consent of City of Hamilton filed.

PROCEDURE FILE 1483.

In the matter of the application of The Home Investment Realty Company, owners, under "The City and Suburbs Plans Act," for approval of Plan of Mountain View Survey, being subdivision of part Lots 55 and 56, and the Gore in the Second Concession, Township of Ancaster.

Nov. 28. Consent of City of Hamilton filed.

PROCEDURE FILE 1484. (P.F.P. 125.)

Application by The Hamilton and Dundas Street Railway Company, under sec. 59, ss. 10, of "The Ontario Railway and Municipal Act," for approval of plan, profile, and book of reference of switch off its railway as already constructed, into the works of The Chapman Engine and Manufacturing Company, in the Town of Dundas.

Nov. 29. Application, plan, profile and book of reference (in triplicate) filed, considered, approved, and certified.

PROCEDURE FILE 1485.

Application by the Village of Weston, under "The Ontario Municipal Securities Act, 1908," for an order validating its By-law No. 587, and the debentures thereunder (\$10,000 for extension of Electric Light and Waterworks Systems).

Nov. 29. Application and material filed.

Dec. 28. Further material filed. (See P.F. 1531.)

PROCEDURE FILE 1486.

Application by the Village of Weston, under "The Ontario Municipal Securities Act, 1908," for an order validating its By-law No. 573, as amended by By-law 590, and debentures thereunder (\$40,000 for construction of sewage system).

Nov. 29. Application and material filed.

Dec. 5. Letter for further material.

PROCEDURE FILE 1487. (See P.F.F. 831-2.)

The Grand Trunk Pacific Elevator Co., Ltd.,

vs.

Fort William.

(Assessment Appeal.)

Nov. 30. Notice of appeal filed.

PROCEDURE FILE 1488. (See P.F.F. 831-2.)

The Grand Trunk Pacific Terminal Elevator Co., Ltd.,

vs.

Fort William.

(Assessment Appeal.)

Nov. 30. Notice of appeal filed.

PROCEDURE FILE 1489.

Application by the City of London, for annexation of part Township Westminster (Chelsea Green).

Dec. 1. Application, petition, and resolution, declaring expediency of annexation filed.

Dec. 12. Hearing, pursuant to appointment, annexation decreed to take effect Dec. 16th, 1912.

Upon the application of the said applicants made upon the First day of December A.D. 1912, and upon reading the resolution of the Council of the Corporation of the City of London passed on the Eighteenth day of November A.D. 1912, the petition of the said applicants, the statutory declaration filed in support thereof, and upon hearing what was alleged by counsel on behalf of the applicants, the Corporation of the City of London, and the Corporation of the Township of Westminster, and judgment having been reserved until this day,

The Board orders and proclaims that the lands and premises in the said Township of Westminster mentioned in the petition filed, and being described as that

portion of the Township of Westminster lying south-east of the said City of London, and more particularly described as follows, that is to say: Commencing at the intersection of the eastern limit of Lot Number Twenty-two in the Broken Front Concession of the Township of Westminster, with the River Thames; thence southerly along said eastern limit of said lot to the base line of said township; thence westerly along the northerly limit of said base line to the London and Fort Stanley Railway track; thence northerly along the said railway track to the Whetter Road; thence westerly along the northern limit of the Whetter Road to the eastern boundary of the City of London; thence northerly along said eastern boundary of the said City of London to the River Thames; thence easterly along the River Thames to the place of beginning, and more generally known as Chelsea Green, be and the same are hereby annexed to the City of London, the said annexation to take effect on the Twenty-first day of December A.D. 1912, upon and subject to the following terms and conditions, namely:

1. That for a period of fifteen years from the date of annexation, the said lands so annexed and the buildings then erected thereon shall not be assessed for any greater amount than they were assessed at by the Assessor for the said Township of Westminster for the year 1911.

2. That the Assessment Commissioner of the City of London shall be at liberty to add to such assessment the value of any and all buildings, erections or structures after the date of the said annexation, built, erected, or made, or any improvements done upon the said lands or any part or sub-division of the same, and the value of all plant, machinery and other property thereon or annexed thereto not exempt from taxation, subject, however, to the right of appeal as provided by the Assessment Act and Amending Acts.

3. That provided the said lands, buildings, improvements, plant, machinery and property are used only for manufacturing purposes, it or they shall be subject to no greater assessment for the said period of fifteen years than the said lands are at present assessed for by the said Township of Westminster.

4. That the rate of taxation to be paid by the ratepayers of the annexed district shall be fixed at the rate of fifteen mills on the dollar for a period of fifteen years succeeding the date of annexation.

5. That in case it shall be necessary, during the said period of fifteen years, to rebuild the bridge at the foot of Adelaide Street, then the rate of taxation to be paid by the ratepayers of the annexed district shall be fixed at the rate of fifteen and one-half mills on the dollar for the remainder of the said term of fifteen years.

6. That it shall be the duty of the Water Commissioners for the City of London to cause to be laid water-mains for fire and domestic purposes, and to extend the street lighting system of the city upon such streets and portions of streets within such limit or limits of the annexed district as will, in their opinion, adequately protect and meet the requirements of the property of the said annexed district.

7. That the Debenture Debt of the said portion of the said Township of Westminster hereinbefore described shall be assumed by the said City of London as amalgamated, including the share, if any, of the said Township of Westminster of the Debt of the County of Middlesex, and the Corporation of the City of London shall be entitled to receive from and be repaid by the County of Middlesex, the value of the interest which the said township has, at the time of the said annexation, in the property or assets of the County of Middlesex.

8. The said annexed district shall be known as part of Ward Number Five.... of the said city.

9. That for registry purposes the said district so to be annexed shall be known as the registry district of East London, and the Registrar for the North and East Ridings of the County of Middlesex shall be the Registrar thereof.

10. That the population of the City of London and the said district to be annexed is over Fifty thousand (50,000.)

11. The Board of Assessors of the City of London may at any time in the year 1912 or in the year 1913, prior to the passing of a By-law of the Council of the Corporation of the City of London striking the rate of taxes for the year 1913, assess (subject to the rights of appeal provided by the Assessment Act and Amending Acts, and subject to the terms and conditions hereinbefore set out) the lands included in the district hereby annexed, and the owners and occupants thereof for the year 1913, as though the same had been made in the year 1912, and the assessment so made shall be the assessment on which the taxes in the said district for 1913 shall be collected.

.....

Vice-Chairman.

PROCEDURE FILE 1490.

Application by the City of London, for annexation of part of Township of London, being part Plan No. 19.

Dec. 1. Application, petition and resolution declaring expediency of annexation, filed.

Dec. 12. (Hearing, pursuant to appointment. Petition found not sufficiently signed. Application dismissed.

PROCEDURE FILE 1491.

Application by Wm. Ridout, owner, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Lots 21 and 45, and westerly 22 feet of Lot 22, Registered Plan 1332, York, according to Plan prepared by Henry De P. Sewell, O.L.S., and dated 24th June, 1912.

Dec. 3. Application filed. (Consent of city endorsed on plan). Plan approved and certified.

PROCEDURE FILE 1492.

Application by the City of Kingston, under sec. 388C of "The Consolidated Municipal Act, 1903" (9 Edw. VII., c. 73, sec. 12, as amended by 10 Edw., c. 85, sec. 6) for an order approving By-law No. 37, 1912 (\$7,500 to pay cost of subway ordered by Dominion Railway Board).

Dec. 4. Application and material filed.

Dec. 5. Application and material considered and approved. Order.

11 R.M.

PROCEDURE FILE 1493.

Township of Barton

vs.

Manufacturers' National Gas Co., Ltd.

(To enforce Township's By-law 565 and obligations thereunder.)

Dec. 5. Application filed.

PROCEDURE FILE 1494. (P.F.P. 126.)

Application by The Toronto Suburban Railway Company, for approval of Plan of proposed crossing under the C.P.R. Bridge at Mimico River, in Lot 8, Con. "B," Township Etobicoke (Drawing No. 2667).

Dec. 6. Plan and profile filed and referred to Board's engineer.

Dec. 16. Engineer's report filed.

Sir,—I have examined the plan and profile of the proposed crossing under the Canadian Pacific Railway Bridge at Mimico River, Lot 8, Concession B, Township of Etobicoke, County of York, for the Toronto Suburban Railway. The Canadian Pacific Railway Bridge is in three spans at this point, two spans of 33 ft. each and a centre one of 79 ft. The Toronto Suburban Railway Company propose to excavate the bank out between the pier supporting the centre span and the abutment at the west end of the bridge, under the 33 ft. plate girder of the C.P.R. bridge. This abutment now rests on piles as shown on the small detail plan attached, and in order to prevent any movement after the earth has been taken away for the electric line, this abutment is to be connected by an apron of concrete to the retaining wall to be built by the Toronto Suburban Railway. This retaining wall, therefore, must be built sufficiently strong to resist this thrust and also that of the earth at its back. Provided this is done in a satisfactory manner I see no objection to these plans being approved by your Board, though perhaps as a further precaution, if you so desire, it might be better to only approve them upon condition that the Company submit to you the stress sheets of the proposed wall with all the dimensions and figures marked on. On these plans now submitted there is nothing given in detail, so that it is impossible to check any figures, except those for head room and for lateral clearance, which are more than required by the Board's specifications.

Yours truly,

(Signed) H. W. MIDDLEMIST.

PROCEDURE FILE 1495. (P.F.P. 127.)

Application by The Toronto Suburban Railway Company, for approval of Plan of proposed crossing of C.P.R. and connection therewith in Lot 11, Con. 5, Township of York, County of York.

Dec. 6. Plan and profile filed and referred to Board's engineer.

PROCEDURE FILE 1496.

Application by Zella A. McGillivray and Gordon B. McGillivray, Owners, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of the West part of Lot 10, Con. I., west of Yonge Street, according to plan prepared by S. R. Crerar, O.L.S.

Dec. 7. Application filed.

PROCEDURE FILE 1497.

Application by the Town of Haileybury, under 8 Edw. VII., chap. 51, for validation of its By-law No. 342, and the debentures thereunder (\$15,000 for water-works extensions).

Dec. 9. Application filed. (For further material see P.F. 1366.)

Dec. 19. Application and material considered and approved. Order.

PROCEDURE FILE 1498.

Duncan Chisholm (County Judge, Waterloo County),

vs.

City of Berlin.

(Assessment Appeal.)

Dec. 9. Order filed of Hon. Mr. Justice Middleton (in Chambers) appointing D. M. McIntyre, K.C., Chairman of Board, to hear appeal. Dec. 12th, 1912, at 2.30 p.m., at Board's Chambers, appointed to hear Counsel mention this appeal.

Dec. 11. Hearing adjourned *sine die* at request of Counsel.

Dec. 20. Application withdrawn.

PROCEDURE FILE 1499.

Application by George Monck, Owner, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Hillborn Estate, being part Block "Z," Plan 1249, Township of York, County of York, according to plan prepared by Messrs. Abrey and Co., and dated 3rd December, 1912.

Dec. 10. Application filed.

PROCEDURE FILE 1500. (I.C. \$15,000.)

Application by the Town of Aurora, under "The Ontario Municipal Securities Act, 1908," for validation of By-law No. 349 and the debentures thereunder \$15,000 Bonus Loan to The Collie Cockerill Manufacturing Company. Ltd.).

Dec. 10. Application and material filed.

Dec. 21. Further material filed as directed, considered and approved. Order.

PROCEDURE FILE 1501.

Application by The Algoma Eastern Railway Company (formerly The Manitoulin and North Shore Railway Company), under 7 Edw. VII., c. 38, sec. 1, for approval of line for payment of Subsidy under 9 Edw. VII., c. 72, s. 3, as amended by 1 Geo. V., chap 17, s. 15, ss. (1) (d).

Dec. 11. Application filed. Hearing. Application granted. Order.

Upon reading the report and hearing the evidence of A. J. Halford, Esquire, engineer, approving of the construction of said Line of Railway.

The Board hereby certifies and declares that the said The Manitoulin and North Shore Railway Company, now the Algoma Eastern Railway Company, is entitled to the payment of the Provincial Subsidy of \$5,000 per mile of its railway for a distance of Thirty miles from mileage Twenty-three at The Crean Hill Mine, to mileage Fifty-three, the said subsidy having been granted to the said Company by 9 Edw. VII., chap. 72, sec. 3, and having been extended by 1 Geo. V., chap. 17, sec. 15, subsection (1) (d).

(Signed) D. M. McINTYRE,
Chairman.

(Seal.)

PROCEDURE FILE 1502.

Application by The Turner Realty Company, Ltd., owners, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Mount Royal Extension, being a re-subdivision of Part Lot No. 1 (part Lot 12,, Con. IV., Township of Barton, according to Plan prepared by James J. MacKay, O.L.S., and dated Nov. 2nd, 1912).

Dec. 11. Application and consent of City of Hamilton filed. (Consent of township endorsed on plan.) Plan approved and certified.

PROCEDURE FILE 1503.

In the matter of the application of the Corporation of the Town of Midland, under 6 Edw. VII., chap. 34, sec. 1 (sec. 24 of "The Consolidated Municipal Act, 1903") to annex part of the Township of Tay, being E, half Lot 104, Con. I.; Lot 104, Con. II.; E. halves Lots 105, 106 and 107, Con. II., and those parts of Lots 17, 18, 19, 20, 21 and 22, Con. III., Township of Tay, lying west of River Wye, and waters of Midland Harbor.

Dec. 13. Application filed.

Dec. 16. Hearing. Annexation decreed to take effect Jan. 8th, 1912. Order to be drafted and approved by counsel for the Township of Tay.

PROCEDURE FILE 1504.

Application by the City of Windsor, under 8 Edw. VII., chap. 51, for validation of Consolidating By-law 1513, and the By-laws thereby consolidated, and the debentures thereunder (\$68,801.41, Local Improvements).

Dec. 13. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1505.

Application by the City of Guelph, under sec. 388B of "The Consolidated Municipal Act, 1903" (4 Edw. VII., c. 22, sec. 11) for approval of its Interest Increase By-law 982 (amending By-law 943).

Dec. 13. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1506.

Application by the City of Guelph, under 4 Edw. VII., chap. 22, sec. 11, for approval of Interest Increase By-law 983 (amending By-law 885).

Dec. 13. Application and material filed, considered, and approved. Order.

PROCEDURE FILE 1507.

Application by Geo. F. Webb, owner, under "The City and Suburbs Plans Act," for approval of Plan of part Lot 12, Con. III., Township of Barton, now in the City of Hamilton.

Dec. 13. Application and plan filed, with consent of City of Hamilton to approval thereof. Plan approved and certified.

PROCEDURE FILE 1508.

Application by the Town of Fort Frances, under "The Ontario Municipal Securities Act" for validation of By-law 306, consolidating Local Improvement By-laws 281-292, inclusive, 296 and 305, and the debentures thereunder (\$11,697.38).

Dec. 13. Application and material filed.

Dec. 20. Application and material considered and approved. Order.

PROCEDURE FILE 1509.

Application by the Town of Dundas, under sec. 569, ss. 5, of "The Consolidated Municipal Act, 1903," for approval of its By-law No. 709 (\$15,000 for extension of waterworks system).

Dec. 13. Petition and material filed.

Dec. 27. Further material filed.

PROCEDURE FILE 1510.

Application by the City of Fort William, under 10 Edw. VII., chap. 114, sec. 4, for approval of Telephone Extension By-law No. (\$35,000).

Dec. 13. Application and material filed.

Dec. 14. Application and material considered and approved. Order.

PROCEDURE FILE 1511.

Application by The Wychwood Corporation, Ltd., under "The City and Suburbs Plans Act," for approval of Plan, dated 18th November, 1912, prepared by Messrs. Speight and Van Nostrand, O.L.S., and shewing the re-division of part of Registered Plan 854 (York) now in the City of Toronto.

Dec. 13. Application filed. Plan produced with approval of City of Toronto endorsed thereon. Plan approved and certified.

PROCEDURE FILE 1512.

Application by the Town of Cornwall, under "The Ontario Municipal Securities Act, 1908," for validation of its By-law No. 19, and the debentures thereunder (\$30,000 for extension of waterworks system.)

Dec. 14. Application and material filed.

Dec. 17. Application and material considered and approved.

Dec. 18. Order.

PROCEDURE FILE 1513.

Application by the City of Toronto, under sec. 169 of "The Ontario Railway Act," for approval of By-law 6304, to fix fares on Civic Car Line on Gerrard Street and Coxwell Avenue.

Dec. 14. Application and copy of By-law filed, considered, and approved. Order.

Upon the application of the Corporation of the City of Toronto for an order approving of By-law Number 6304, passed on the 13th day of December, 1912, fixing the rate of fares on the civic car lines on Gerrard Street and Coxwell Avenue, and upon reading the said By-law, and upon hearing what was alleged by counsel for the applicant.

The Board orders that By-law Number 6304 of the City of Toronto, passed on the 13th day of December, 1912, fixing the rate of fares on the civic car lines on Gerrard Street and Coxwell Avenue, be and the same is hereby approved.

(Seal.)

(Signed) D. M. McINTYRE,

Chairman of the Ontario Railway and Municipal Board.

PROCEDURE FILE 1514. (I.C. \$13,582.26.)

Application by the Village of Bridgeburg, under "The Ontario Municipal Securities Act," for validation of Consolidating By-law 296, and the debentures thereunder (\$13,582.26 for sewers).

Dec. 16. Application and material filed. Order.

PROCEDURE FILE 1515. (I.C. \$28,010.)

Application by the Village of Bridgeburg, under "The Ontario Municipal Securities Act, 1908," for validation of By-law 297, and debentures (\$28,010.00 for sewers).

Dec. 16. Application and material filed. Order.

PROCEDURE FILE 1516.

Application by Frederick Arnold and O. F. Dodge, owners, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot "F," Registered Plan 124, Scarborough Township, County of York, according to Plan prepared by Messrs. Speight and Van Nostrand, O.L.S., and dated Nov. 30th, 1912.

Dec. 18. Application filed. (Consent of township endorsed on plan.)

Dec. 19. Consent of City filed. Plan approved and certified.

PROCEDURE FILE 1517.

Application by A. G. C. Dinnick, owner, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 2, Registered Plan 115, County of York (partly in Township York and in the City of Toronto).

Dec. 18. Application filed.

PROCEDURE FILE 1518.

Application by A. G. C. Dinnick, owner, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lots 3 and 5, Registered Plan 115, County of York (Township of York).

Dec. 18. Application filed.

PROCEDURE FILE 1519.

In the matter of the application by the Graham Land Company, Ltd., under "The City and Suburbs Plans Act," for approval of Plan of part Lot 3, Con. II., Township of Barton, now in Hamilton.

Dec. 19. Objection filed by City of Hamilton.

PROCEDURE FILE 1520.

Application by Samuel McCutcheon, owner, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 12, Con. V., West of Yonge Street, Township of York and County of York.

Dec. 20. Application and consent of city filed. (Consent of township endorsed on plan.) Plan approved and certified.

PROCEDURE FILE 1521. (P.F.P. 128.)

Application by The Toronto Suburban Railway Company, for approval of Plan, etc., of Trestle, Station 462 + 85 to 465 + 26, Lambton to Guelph.

Dec. 14. Plan filed and referred to Board's engineer.

Dec. 20. Engineer's report filed. Plan approved and certified.

Sir,—I have examined the stresses in the wooden trestle plans of the Toronto Suburban Railway at Station 462 + 85 to station 465 + 26 on the Lambton and Guelph branch, and find the trestle strong enough for Class II. loading of the Board's specifications with the impact allowance added.

I therefore recommend these plans for your approval.

Yours truly,

(Signed) H. W. MIDDLEMIST.

PROCEDURE FILE 1522. (P.F.P. 129.)

Application by The Toronto Suburban Railway Company, for approval of Plan, etc., of Trestle, Station 1208 + 28 to 1211 + 12, Toronto to Guelph Line.

Dec. 14. Plan filed and referred to Board's engineer.

Dec. 20. Engineer's report filed. Plan approved and certified.

Sir,—I have examined the stresses in the wooden trestle plans of the Toronto Suburban Railway at Station 1208 + 28 to Station 1211 + 12, on the Toronto to Guelph Line, and find the trestle strong enough for Class II. loading of the Board's Specifications, with the impact allowance and the wind stresses as set forth therein.

I therefore recommend these plans for your approval.

Yours truly,

(Signed) W. H. MIDDLEMIST,

PROCEDURE FILE 1523. (P.F.P. 130.)

Application by The Toronto Suburban Railway Company, for approval of Plan, etc., of Trestle, Station 1343 + 83 to Station 1347 + 88, Lambton to Guelph.

Dec. 14. Plan filed and referred to Board's engineer.

Dec. 20. Engineer's report filed. Plan approved and certified subject to compliance with Engineer's report.

Sir,—I have examined the plans of the wooden trestle at Station 1343 + 83 to Station 1347 + 88 on the Lambton to Guelph Line of the Toronto Suburban Railway, and find the trestle strong enough to carry Class II. loading of your Specifications, with the impact added, in addition to the stresses produced by wind, and those from the centrifugal force on a ten degree curve. Extra bracing has been put in to support the stringers on the curve against the thrusts produced by the centrifugal force, but I would strongly advise that when the rails are laid on this trestle a guard rail be put in next the inner rail of the curve, and bolted to it at proper intervals, to prevent any chance of derailment. This guard should be the same sized rail as those used for the track and should extend at least 50 feet beyond the point of curve at each end. The curve is a transition which makes it easier than the ordinary circular curve frequently used.

Provided this guard rail is put in, I see no objection to the Board approving these plans.

Yours truly,

(Signed) H. W. MIDDLEMIST.

PROCEDURE FILE 1524.

Application by Amalgamated Association of Street and Electric Railway Employees of America, under sec. 58A of "The Ontario Railway and Municipal Board Act, 1906" (2 Geo. V., c. 37, sec. 3), for regulation of hours of labor on Port Arthur and Fort William Street Railway.

Dec. 24. Application filed.

Letter to railway company advising of complaint and asking for explanation.

PROCEDURE FILE 1525.

Application by the Town of Brampton, under 4 Edw. VII., chap. 22, sec. 11, for approval of interest increase By-law 485, amending By-law 418, increasing from 5 per cent. to 5½ per cent. the interest on \$43,000.

Dec. 24. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1526.

Application by the Township of St. Vincent, under ss. 9 of section 17 of "The Ontario Telephone Act," for approval of its By-law No. 18 (1912). (\$3,800 for construction of telephone system.)

Dec. 26. Application and material filed and considered.

Dec. 30. Extensions approved.

PROCEDURE FILE 1527.

Application by the Township of St. Vincent, under ss. 9 of section 17 of "The Ontario Telephone Act," for approval of its By-law No. 27 (1912). (\$3,200 for construction of telephone system.)

Dec. 26. Application and material filed.

Dec. 30. Application and material considered. Extensions approved.

PROCEDURE FILE 1528.

Application by The Algoma Eastern Railway Company (formerly The Manitoulin and North Shore Railway Company), under 7 Edw. VII., chap. 38, sec. 1, for certificate approving ten miles of its railway and also three miles thereof starting at a point about fifty-three miles southerly from Sudbury.

Dec. 26. Application filed.

Dec. 30. Hearing pursuant to appointment. Board decrees certificate as to 10 mile section (mileage 53-63) and adjourns, *sine die*. Hearing of application as to 3 mile section (mileage 63-66).

Upon reading the report and hearing the evidence of A. J. Halford, Esquire, engineer, approving of the construction of said line of railway.

The Board hereby certifies and declares that the said The Manitoulin and North Shore Railway Company, now the Algoma Eastern Railway Company, is entitled to the payment of the provincial subsidy of \$5,000 per mile of its railway for a distance of ten miles from a point distant about 53 miles southerly from the Town of Sudbury, the said subsidy having been granted to said Company by 9 Edward VII., chapter 72, Ontario, section 3, and having been extended by 1 George V., chapter 17, Ontario, section 15. sub-section 1D,

And the Board orders that the hearing of the said company's application for the approval, as aforesaid, of three miles of its railway from a point distant about 63 miles southerly from Sudbury, be and the same is hereby adjourned to a date to be hereafter fixed by the Board on the application of the said company.

(Seal.)

(Signed) A. B. INGRAM.

Vice-Chairman.

PROCEDURE FILE 1529. (P.F.P. 132.)

Application by The Algoma Central and Hudson Bay Railway Company, under 7 Edw. VII., chap. 38, sec. 1, for certificate approving fifty miles of its railway extending northerly from the main line of the Canadian Pacific Railway Company.

Dec. 26. Application filed.

PROCEDURE FILE 1530.

Application by W. G. Trethewey, owner, for approval, under "The City and Suburbs Plans Act," of Plan of subdivision of part of Block Lot "A," Plan M304, composed of part of Lot 5, Con. V., West of Yonge Street, Township of York, according to plan prepared by John J. Dalton, O.L.S., and dated Nov. 5, 1912.

Dec. 27. Application and consent of City of Toronto filed. (Consent of township endorsed on plan.) Plan approved and certified.

PROCEDURE FILE 1531.

Application by the Village of Weston, under ss. 5 of sec. 569 of "The Consolidated Municipal Act," and amendments, for approval of its By-law No. 587. (\$10,000 for electric light and waterworks extensions.)

Dec. 28. Application and material filed. (See P.F. 1485.)

PROCEDURE FILE 1532.

Application by the Township of Amaranth, under "The Ontario Municipal Securities Act, 1908," for validation of its By-law No. 415, and debentures thereunder (\$6,700 for two bridges in said township).

Dec. 28. Application and material filed.

PROCEDURE FILE 1533.

Application by Rockwood Realty, Limited, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of Block "A" 47, and part of Block 28, being part of parcel 116, Plan M22, Ottawa.

Dec. 27. Plan filed. (Consents of City of Ottawa and Village of Eastview endorsed on plan.) Plan approved and certified.

PROCEDURE FILE 1534.

Application by the Village of Richmond Hill, under 4 Edw. VII., chap. 22, sec. 11, for approval of its interest increase ($4\frac{1}{2}$ to 5 per cent.) By-law No. 243.

Dec. 28. Application and material filed, considered and approved. Order.

PROCEDURE FILE 1535.

In the matter of the application of the Central Land and Building Company, under "The City and Suburbs Plans Act," for approval of Plan of subdivision of part Lot 5, Con. I., Township of Barton, now in the City of Hamilton.

Dec. 31. Provisional consent of City of Hamilton filed.

PROCEDURE FILE 1536.

Application by the Toronto Suburban Railway Company, for approval of Plan of Mimico Creek Crossing, mileage 1.77 from Lambton.

Dec. 31. Application and plan filed, and referred to Board's engineer.

TABULATED SUMMARY OF ACCIDENT REPORTS RECEIVED IN 1912.

Passengers.	Employees.	Travellers on highway		Travellers at crossing.		Trespassers.		Total.	
Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
4	306	2	31	19	199			25	537

ACTS AND MEMO. OF SEVERAL ACTS UNDER WHICH THE BOARD
EXERCISES JURISDICTION.

ANNEXATION OF TERRITORY TO MUNICIPALITY.

Sections 16 and 24 of "The Consolidated Municipal Act."

AREA OF TOWN OR VILLAGE LIMITED.

Section 12 of The Consolidated Municipal Act.

ASSESSMENT APPEALS.

R.S.O., section 41 to 46, cap. 225, 1897.

Section 76, cap. 23, 1904.

Cap. 24, 1905.

Sections 51 and 52, cap. 31, 1906.

Sections 18 and 19, cap. 88, 1910.

See *re* Fort Frances Assessment Appeal, 4, O.W.N.

APPROVAL OF BY-LAW INCREASING RATE OF INTEREST ON DEBENTURES.

Section 388*b* of The Consolidated Municipal Act.

REPEAL OF BY-LAW AS TO MONEYS NOT REQUIRED.

Section 391 of The Consolidated Municipal Act.

BY-LAW REDUCING RATES TO BE COLLECTED WHERE NOT NEEDED TO MEET DEBENTURES.

Sections 412 and 413 of The Consolidated Municipal Act.

BY-LAW TO CHANGE MODE OF ISSUING DEBENTURES.

Section 386 (4) of The Consolidated Municipal Act.

BY-LAW EXTENSION OF DEBENTURE ISSUE PERIOD.

Section 384 (3) of The Consolidated Municipal Act.

BY-LAW FOR LAYING PIPES OR CONDUITS FOR ELECTRIC WIRES.

Section 559, subsec. 4 (a) of The Consolidated Municipal Act.

BY-LAWS AFFECTING PUBLIC ROADS.

Sections 630, 632 (2), 640 (11), and 660 of The Consolidated Municipal Act.

Section 53 (3), cap. 31, 1906.

See also 4, O.W.N., 521.

BY-LAWS, APPROVAL OF CERTAIN CITY BRIDGES.

Section 388*a* and 388*c* of The Consolidated Municipal Act.

BY-LAWS, APPROVAL OF EXTENSION OF WATERWORKS, ELECTRIC LIGHT PLANT, SEWERS OR
GAS WORKS.

Section 569 of The Consolidated Municipal Act.

COUNTY BOUNDARY LINES, SETTLEMENT OF DISPUTES.

Section 654, 654 (a) and 655 of The Consolidated Municipal Act.

CONSOLIDATION OF FLOATING DEBT OR CONSOLIDATION OR RENEWAL OF DEBENTURES.

Rule 61*a*, page 421. Votes and Proceedings of Legislative Assembly, 27th March,
1907.

MORTGAGES TO BE DEPOSITED WITH BOARD:

Section 60, cap. 7, 1903.

Section 44, ss. 4, cap. 30, 1906.

Sections 41 and 42, cap. 33, 1908.

INVESTMENT OF SINKING FUND.

Section 420, cap. 19, 1903.

Section 53, cap. 31, 1906.

AN ACT TO SUPPLEMENT THE REVENUES OF THE CROWN. TAX ROLLS AND APPEALS.

Cap. 9, 1907.

Cap. 15, 1908.

Cap. 14, 1909.

Section 30, cap. 26, 1910.

AN ACT RESPECTING TELEPHONE SYSTEMS.

The Ontario Telephone Act (cap. 38, 1912).

AN ACT RESPECTING MUNICIPAL BY-LAWS AND AGREEMENTS, *re* FRANCHISES.

The Municipal Franchises Act (cap. 42, 1912).

AN ACT RESPECTING MUNICIPAL SECURITIES.

Cap. 51, 1908.

Cap. 76, 1909.

Cap. 86, 1910.

AN ACT RESPECTING PUBLIC WORKS OF ONTARIO.

Sections 29 to 40, cap. 11, 1910.

THE ONTARIO RAILWAY ACT.

Cap. 30, 1906.

Cap. 37, 1907.

Cap. 44, 1908.

Cap. 45, 1908.

Cap. 68, 1909.

Cap. 81, 1910.

Cap. 52 and 53, 1911.

Cap. 35, 1912.

THE ONTARIO RAILWAY AND MUNICIPAL BOARD ACT.

Cap. 31, 1906.

Cap. 38, 1907.

Cap. 46, 1908.

Cap. 82, 1910.

Cap. 83, 1910.

Cap. 54, 1911, and see 4, O.W.N., 784.

Cap. 37, 1912.

AN ACT TO AMEND THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY ACT.

Section 3, cap. 18, 1909.

WORKS ORDERED BY DOMINION OR ONTARIO RAILWAY COMMISSION.

(By-law need not be voted on, but must be approved by Ontario Board.)

Section 388c of The Consolidated Municipal Act.

"INTERSWITCHING."

Section 228, cap. 37, R.S.C., 1906.

Section 5, cap. 22, S.C., 1911.

Section 98, cap. 30, Ont. Statute, 1906.

cap. 52, Ont. Statute, 1911.

PARK—SETTING ASIDE PART OF, FOR SPORTS, ETC.

2 Geo. V., cap. 46, sec. 13, ss. 6.

APPROVING PLANS.

"The City and Suburbs Plans Act, 2 Geo. V., c. 43.

(NOTE.—The above list is prepared to facilitate reference to legislation, and does not purport to be exhaustive.)

TARIFF OF FEES.

The Ontario Railway and Municipal Board orders and directs that the following sums in law stamps shall be paid on the following orders and the following fees in every application or matter coming before the Board:—

In contentious matters requiring a hearing, there shall be paid in law stamps the sum of \$15.00 for each day or fraction thereof over one-half day, and the sum of \$10.00 for half a day or fraction thereof occupied by the hearing.

On orders under The Municipal Securities Act, 1903, for validating By-laws and Debentures, the following sums shall be paid in law stamps:—

			Law Stamps.
Where the issue of Debentures amounts to \$10,000 or less.....			\$15 00
Over \$10,000 and up to \$15,000			20 00
“ \$15,000 “ \$20,000			25 00
“ \$20,000 “ \$25,000			30 00
“ \$25,000 “ \$30,000			35 00
“ \$30,000 “ \$40,000			40 00
“ \$40,000 “ \$50,000			45 00
“ \$50,000 “ \$60,000			50 00
“ \$60,000 “ \$70,000			55 00
“ \$70,000 “ \$80,000			60 00
“ \$80,000 “ \$90,000			65 00
“ \$90,000 “ \$100,000			70 00
“ \$100,000 “ \$110,000			75 00
“ \$110,000 “ \$120,000			80 00
“ \$120,000 “ \$130,000			85 00
“ \$130,000 “ \$140,000			90 00
“ \$140,000 “ \$150,000			95 00
“ \$150,000 “ \$160,000			100 00
“ \$160,000 “ \$170,000			105 00
“ \$170,000 “ \$180,000			110 00
“ \$180,000 “ \$190,000			115 00
“ \$190,000 “ \$200,000			120 00

The following sums shall be paid in law stamps on the following orders:—

On Orders for Annexation of Territory	\$10.00
Mun. Act, Sec. 1, Cap. 34, 1906.	
On Orders for approval of By-laws for works ordered by Dom. or Ont. Railway Boards	\$10.00
9 Edw. VII., c. 73, sec. 12; 10 Edw. VII., c. 85, sec. 6.	
On Orders for approval of By-laws for extension of Waterworks, Electric Light or Gas Works	\$10.00
Mun. Act, Sec. 21, Cap. 34, 1906.	
On Orders for approval of Sinking Fund Investment By-laws	\$5.00
Mun. Act, Sec. 420.	
On Orders for approval of By-laws increasing the rate of interest on debentures	\$5.00
Mun. Act, Sec. 11, Cap. 22, 1904.	
Orders for approval of Bridge Construction By-law	\$5.00
Sec. 388a, c. 19, 1903.	
On Orders for approval of By-laws for stopping up, leasing or selling part of a road along the bank of any river or stream or along the shore of any lake	\$5.00
Mun. Act, Sec. 632, 1903.	
On Orders approving Railway Companies' Public By-laws and Rules	\$2.00
Ry. Act, Sec. 150, Cap. 30, 1906.	

On Orders approving Railway Companies' Tolls and Tariffs	\$2.00
Ry. Act, Sec. 169, Cap. 30, 1906.	
On Orders approving Railway Companies' Examiner of Motormen.....	\$1.00
Ry. Act, Sec. 221, Cap. 30, 1906.	
On certifying plans under "The City and Suburbs Plans Act".....	\$5.00
2 Geo. V., c. 43 (Ontario).	

STATEMENT IN DETAIL OF TRAVELLING EXPENSES AND DISBURSEMENTS. 1912.

Jan.	James Leitch, K.C., Chairman	\$30 75
	A. B. Ingram, Vice-Chairman	21 85
	H. N. Kittson, Commissioner	11 75
	H. C. Small, Secretary, and Office	22 47
	W. C. Coe, Official Stenographer	25 45
April	James Leitch, K.C., Chairman	23 70
May	James Leitch, K.C., Chairman	24 25
	A. B. Ingram, Vice-Chairman	8 10
	H. N. Kittson, Commissioner	6 95
	H. C. Small, Secretary	7 10
	W. C. Coe, Official Stenographer	9 30
June	James Leitch, K.C., Chairman	4 25
	A. B. Ingram, Vice-Chairman	3 50
	H. N. Kittson, Commissioner	2 25
Sept.	James Leitch, K.C., Chairman	82 80
	A. B. Ingram, Vice-Chairman	78 75
	H. N. Kittson, Commissioner	73 60
	H. C. Small, Secretary, and Office.....	77 40
	W. C. Coe, Official Stenographer	69 25
Oct.	A. B. Ingram, Vice-Chairman	74 20
	H. C. Small, Secretary, and Office	0 33
Nov.	A. B. Ingram, Vice-Chairman	15 37
	H. N. Kittson, Commissioner	2 65
	H. C. Small, Secretary, and Office	6 28
	W. C. Coe, Official Stenographer	8 40
Dec.	A. B. Ingram, Vice-Chairman	9 20
	H. C. Small, Secretary (for Office)	5 60
	W. C. Coe, Official Stenographer	13 45
		\$718 95

LIST 1.

ONTARIO ELECTRIC AND STEAM RAILWAYS THAT ARE IN ACTUAL OPERATION AND UNDER THE JURISDICTION OF THE ONTARIO RAILWAY AND MUNICIPAL BOARD, THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY COMMISSION, AND THE NIAGARA FALLS PARK COMMISSIONERS.

BERLIN AND WATERLOO STREET RAILWAY COMPANY:

	Cap.	Year.
Incorporated by Letters Patent, 6th August, 1886, and March 15th, 1893		
See Ontario Statutes	63	1872

BERLIN AND BRIDGEPORT ELECTRIC STREET RAILWAY COMPANY, LIMITED:

Ontario Statute	131	1912
Act respecting.		
(Name changed to Berlin and Northern Railway Company.)		

BRANTFORD STREET RAILWAY COMPANY:

Ontario Statute	73	1897
Act to incorporate.		

See Grand Valley Railway Company, Woodstock, Thames Valley and Ingersoll Electric Railway Company, and Port Dover, Brantford, Berlin, and Goderich Railway Company.

BRUCE MINES AND ALGOMA RAILWAY COMPANY:

Ontario Statute	93	1899
Act to incorporate.		
Ontario Statute	22	1901
Ontario Statute	25	1902
Ontario Statute	91	1903
Ontario Statute	89	1905
Ontario Statute	19	1906
Ontario Statute	69	1909
Ontario Statute	139	1910
Ontario Statute	17	1912
Dominion Statute	48	1912
Ontario Statute	132	1912

CORNWALL STREET RAILWAY, LIGHT AND POWER COMPANY, LIMITED:

Incorporated by Letters Patent, April 18th, 1902.

GUELPH RADIAL RAILWAY COMPANY:

(Formerly Guelph Railway Company).

Ontario Statute	98	1895
Act to incorporate.		
Ontario Statute	79	1901
Ontario Statute	95	1903
(To change name).		
Ontario Statute	91	1905
Ontario Statute	125	1908
Ontario Statute	115	1910
Ontario Statute	124	1911
Ontario Statute	90	1911

HAMILTON STREET RAILWAY COMPANY:

Ontario Statute	100	1873
Act to incorporate.		
Ontario Statute	90	1893

HAMILTON AND BARTON INCLINE RAILWAY COMPANY:

Ontario Statute	118	1890
Act to incorporate.		

HAMILTON AND DUNDAS STREET RAILWAY COMPANY:

Ontario Statute	87	1875-76
Act to incorporate.		
Ontario Statute	59	1897
Ontario Statute	65	1881
Ontario Statute	68	1884
Ontario Statute	68	1886
Ontario Statute	119	1890
Ontario Statute	100	1895
Ontario Statute	60	1898

HAMILTON, GRIMSBY AND BEAMSVILLE ELECTRIC RAILWAY Co.:

Ontario Statute	95	1892
Act to incorporate.		
Ontario Statute	87	1897
Ontario Statute	80	1901
Ontario Statute	76	1904
Ontario Statute	99	1907

HUNTSVILLE AND LAKE OF BAYS RAILWAY COMPANY:

Ontario Statute	113	1900
Act to incorporate.		
Ontario Statute	97	1903
Ontario Statute	18	1904
Ontario Statute	19	1906
(Sec. 39).		

INTERNATIONAL TRANSIT COMPANY:

Incorporated by Letters Patent, 22nd May, 1888, under R.S.O., Cap. 157, 1897.

Ontario Statute	99	1903
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INTERNATIONAL RAILWAY COMPANY:

(Formerly Niagara Falls Park and River Ry. Co.; also Buffalo Ry. Co.).

Ontario Statute	96	1892
Act to incorporate.		
Dominion Statute	54	1900
Ontario Statute	86	1901
Ontario Statute (Sec. 30)	12	1902
Dominion Statute	43	1902

IRONDALE, BANCROFT AND OTTAWA RAILWAY COMPANY:

(Formerly Toronto and Nipissing Eastern Extension Railway Company.)

Ontario Statute	67	1880
Act to incorporate.		
Ontario Statute	75	1881
Ontario Statute	76	1884
Name changed to Irondale, Bancroft and Ottawa Railway Company.		
Ontario Statute	69	1886
Ontario Statute	74	1887
Ontario Statute	68	1888
Ontario Statute	121	1890
Ontario Statute	41	1892
Secs. 4 and 6.		
Ontario Statute	34	1893
Ss. 1 of sec. 1 and 4.		
Ontario Statute	49	1894
Ss. 1 of sec. 1 and 5.		
Ontario Statute	103	1895
Ontario Statute	48	1896
Ss. 1 of sec. 1 and 5.		
Ontario Statute	22	1898
Ss. 3 of sec. 1.		
Ontario Statute	81	1901
Ontario Statute	25	1902
Subsidy Act. Ss. 3 of sec. 1 and 2.		
Ontario Statute	78	1904
Ontario Statute	94	1905
Ontario Statute	23	1907
Payment of subsidy extended to 1910, sec. 49.		
Ontario Statute	17	1912
Section 45.		

KINGSTON STREET RAILWAY COMPANY:

Ontario Statute	74	1875-76
Act to incorporate.		
Ontario Statute	91	1893
To change name.		
Ontario Statute	79	1904
See Kingston, Portsmouth and Cataraqui Street Railway Co.		

KINGSTON, PORTSMOUTH AND CATARAQUI STREET RAILWAY Co.:

Ontario Statute	74	1875-76
Act to incorporate.		
Ontario Statute	91	1893
Ontario Statute	105	1895
Ontario Statute	61	1898
Ontario Statute	79	1904
Ontario Statute	111	1906

LONDON STREET RAILWAY:

Ontario Statute	99	1873
Act to incorporate.		
Ontario Statute	79	1889
12 R.M.		

Ontario Statute	89	1894
Ontario Statute	107	1895
Ontario Statute	105	1896
Ontario Statute	67	1897
Ontario Statute	97	1899
Ontario Statute	82	1902
Ontario Statute	98	1905
Ontario Statute	110	1909
METROPOLITAN RAILWAY COMPANY:		
Ontario Statute	84	1877
Ontario Statute	94	1893
Ontario Statute	108	1895
Ontario Statute	92	1897
Ontario Statute (T. & Y.R.R. Co.)	66	1898
Ontario Statute	116	1900
Ontario Statute	84	1901
MIDLAND TERMINAL RAILWAY COMPANY:		
Ontario Statute	105	1903
Act to incorporate.		
Ontario Statute	140	1912
(Name changed to "Midland Simcoe Railway Company.")		
MOUNT MCKAY AND KAKABEKA FALLS RAILWAY COMPANY:		
Ontario Statute	82	1904
Act to incorporate.		
Ontario Statute	131	1903
Ontario Statute	101	1911
Act respecting the Municipality of the Township of Paipoonge.		
Ontario Statute	143	1912
Act respecting.		
NIAGARA FALLS PARK AND RIVER RAILWAY COMPANY:		
See International Railway Company.		
OTTAWA ELECTRIC RAILWAY COMPANY:		
Formerly the Ottawa City Passenger Railway Co.		
Statute of Canada		1866
Act to incorporate (29 & 30 Vict.)		
Ontario Statute	45	1868
Ontario Statute		1891
Ottawa Electric St. Ry. Co. was on 13th day of February, 1891, incorporated by Letters Patent, under the Joint Stock Company's Act and Street Railway Act.		
Dominion Statute	53	1892
Declared to be a work for the general advantage of Canada, but the operation of so much of the Company's line of railway as may be within the Province of Ontario by any new or additional powers conferred by this Act, shall be subject to the Statutes of Ontario in force from time to time in relation to street railways.		
Ontario Statute	76	1894
Act to confirm an agreement between the City of Ottawa and the O.C.P. Ry. Co., and the O.E. St. Ry. Co.		
Dominion Statute	86	1894
Act to confirm an agreement between the O.C.P. Ry. Co., and the O.E. St. Ry. Co., and an agreement between the said companies and the Corporation of the City of Ottawa, and to unite said companies under the name of "The Ottawa Electric Railway Co."		
Dominion Statute	82	1899
Dominion Statute	171	1903
Dominion Statute	140	1905
Ontario Statute	98	1911
Act respecting the City of Ottawa.		
See Metropolitan Railway of Ottawa, 28th August, 1891, Ontario Letters Patent		

PORT ARTHUR AND FORT WILLIAM RAILWAY COMPANY:

Ontario Statute	78-93	1891
Act to incorporate.		
Ontario Statute	82	1892
Ontario Statute (Sec. 20)	70	1892
Ontario Statute	78	1893
An Act respecting Port Arthur.		
Ontario Statute	73	1895
An Act respecting Port Arthur.		
Ontario Statute	73	1899
An Act respecting Port Arthur.		
Ontario Statute	65	1901
An Act respecting Port Arthur.		
Ontario Statute	76	1903
An Act respecting Port Arthur.		
Ontario Statute	80	1908
Re Arbitration of part of line in Fort William.		
Ontario Statute	106	1909
City of Fort William. . .		
Ontario Statute	118	1909
City of Port Arthur.		
Ontario Statute	88	1911
City of Fort William.		

PETERBOROUGH RADIAL RAILWAY COMPANY:

Ontario Statute	91	1902
Act to incorporate.		
Ontario Statute	116	1906
Ontario Statute	142	1909

PORT DALHOUSIE, ST. CATHARINES, AND THOROLD ELECTRIC STREET RAILWAY CO.:

Ontario Statute		1893
Incorporated by Letters Patent, 28th June, 1893.		
Ontario Statute	93	1902

NOTE.—May lease or sell to the Niagara, St. Catharines, and Toronto Ry. Co., but subject to the rights, position, and power of any municipal corporation under any statute, by-law, agreement, or otherwise, and the same may be enforced as against the N. St. C. and T. Ry. Co., in the same manner, and to the same extent, and as fully as the same could be enforced, as against the P. D. St. C. & T. E. Ry. Co.

Operated by the Niagara, St. Catharines, and Toronto Railway Company.

SANDWICH, WINDSOR, AND AMHERSTBURG RAILWAY COMPANY:

(Formerly Sandwich and Windsor Passenger Ry. Co.).

Ontario Statute	64	1871-2
Act to incorporate.		
Ontario Statute	64	1874
Act to extend time for completion.		
Ontario Statute	80	1887
Act to amend Act incorporating.		
Ontario Statute	94	1901
Act to amend Acts respecting.		
Ontario Statute	97	1893
Ontario Statute	62	1898
Ontario Statute	94	1902
Transfer by S.E.E. Ry. Co.		
Ontario Statute	112	1903
Act respecting the S.W. & A. Ry. and the City Railway Co., of Windsor.		
The City Railway Company, of Windsor, was incorporated under the provisions of "The Street Railway Act, R.S.C., 208."		
Ontario Statute	88	1904
Transfer from City Company to Sandwich Company authorized.		
Ontario Statute	39	1905
Act respecting Amherstburg.		
Ontario Statute	130	1911
Act to amend.		

SARNIA STREET RAILWAY COMPANY:

Ontario Statute	61	1874
Act to incorporate.		
Ontario Statute	95	1902
Ontario Statute	114	1903
Ontario Statute	107	1908

ST. THOMAS STREET RAILWAY COMPANY:

Ontario Statute	53	1878
Act to incorporate.		
Ontario Statute	51	1898
Act respecting St. Thomas Street Ry. Co.		
Ontario Statute	111	1903
Ontario Statute	150	1910

TEMISKAMING AND NORTHERN ONTARIO RAILWAY:

Ontario Statute	9	1902
Act to authorize construction.		
Ontario Statute	4	1903
Ontario Statute	7	1904
Ontario Statute	10	1905
Ontario Statute	14	1906
Ontario Statute	18	1907
Ontario Statute (Section 23)	33	1908
Ontario Statute	18	1909
Ontario Statute	15	1910
Ontario Statute	13	1911

THURLOW RAILWAY COMPANY:

Ontario Statute	111	1907
Act to incorporate.		

TORONTO CIVIC CAR LINES:

Section 569, Consolidated Municipal Act.....	1903
As amended by Section 4, Chap. 81.....	1910

TORONTO RAILWAY COMPANY:

(Formerly Toronto Street Railway Co.)

Ontario Statute	99	1892
An Act to incorporate the Toronto Railway Company, and to confirm an agreement between the Corporation of the City of Toronto and certain individuals.		
Ontario Statute	85	1893
Ontario Statute	101	1893
Ontario Statute	93	1894
Ontario Statute	81	1897
Ontario Statute	103	1900
Ontario Statute	92	1904
Ontario Statute	112	1908
Ontario Statute	119	1911

TORONTO AND MIMICO RAILWAY COMPANY:

Incorporated by Letters Patent, 14th November, 1890.

Ontario Statute	92	1904
An Act respecting the Township of Toronto and the T. & M. Ry. Co.		

TORONTO AND SCARBORO ELECTRIC RAILWAY, LIGHT AND POWER COMPANY, LIMITED:

Incorporated by Letters Patent, 18th August, 1892.

Ontario Statute	102	1893
Ontario Statute	65	1898
Ontario Statute	66	1898
Ontario Statute	93	1904
Ontario Statute	124	1906

See T. & Y. Ry. Co.

TORONTO SUBURBAN RAILWAY COMPANY:

Ontario Statute	94	1894
Act to incorporate.		
Ontario Statute (Section 1)	103	1900
Ontario Statute	124	1900
Ontario Statute	91	1901
Ontario Statute	94	1904
Ontario Statute	148	1909
Ontario Statute	153	1910
Ontario Statute	133	1911
Ontario Statute	150	1912
Act respecting.		

TORONTO AND YORK RADIAL RAILWAY COMPANY:

Ontario Statute	96	1891
Ontario Statute	98	1892
Ontario Statute	65	1898
Ontario Statute	66	1898
Ontario Statute	118	1903
Ontario Statute	124	1906
Ontario Statute	134	1911
Ontario Statute	119	1911
See Metropolitan, Toronto & Mimico Electric; also Toronto and Scarboro Electric Railway Company.		

WINDSOR AND TECUMSEH ELECTRIC RAILWAY COMPANY:

Ontario Statute	96	1904
Ontario Statute	111	1905
See Ontario Traction Company Agreement. Operated by the S. W. & A. Ry. Co.		

WOODSTOCK, THAMES VALLEY AND INGERSOLL ELECTRIC RAILWAY COMPANY:

Ontario Statute	127	1900
Ontario Statute	98	1902
See Grand Valley; also Brantford Railways.		

Port Arthur and Fort William Electric	13.333	.....	.....	1	.....	1	.....	1	.....	Owned and controlled by municipality of Pt. Arthur and Fort William.
Peterborough Radial.....	5.1	.....	.....	2	.....	1	.....	1	.....	Power obtained from Peterborough Hydraulic Power Company.
Port Dalhousie, St. Catharines and Thorold Electric Street.....	6.5	.....	.....	.....	.....	.....	1	.....	.....	Jurisdiction divided.
Sarnia Street.....	8.25	.....	1	.....	.....	1	.....	1	.....	Power hired.
Sandwich, Windsor and Amherstburg..	26.61	.....	1	.....	.....	1	.....	1	.....	Operates Windsor & Tecumseh El. Ry.
St. Thomas Street.....	7.50	.....	1	.....	.....	1	.....	1	.....	Owned and controlled by municipality.
Timiskaming and Northern Ontario ..	304.03	.....	.....	.....	.....	1	.....	.....	1	Under control of Temiskaming and Northern Ontario Railway Commission.
Tharlow Railway Co.....	2.671	.....	.....	.....	.....	1	1	.....	1	Jurisdiction divided.
Toronto Civic Car Lines	6.45	.....	.....	.....	.....	1	.....	1	.....	Power obtained from Hydro Electric Power Commission.
Toronto Street.....	108.348	16	1	.....	.....	1	.....	1	.....	Three stations and obtains power from Niagara Falls. Mileage does not include tracks in sheds and yards.
Toronto and York Radial— “ Metropolitan Branch	52.43	.....	2	.....	.....	1	.....	1	.....	A. C. station at Newmarket fed from Bond Lake
“ Mimico Branch.....	10	.....	.....	.....	.....	1	.....	1	.....	Power hired.
“ Scarborough Branch	10	.....	.....	.....	.....	1	.....	1	.....	Power hired.
Toronto Suburban.....	9.84	.....	1	.....	.....	1	.....	1	.....	Leased and operated by the Sandwich, Windsor and Amherstburg.
Windsor and Tecumseh.....	9.45	.....	.....	.....	.....	1	.....	1	.....	
Woodstock, Thames Valley and Ingersoll	11.50	.....	1	.....	.....	1	.....	1	.....	
Total mileage	842.536	21	.....	.....	.....	1	.....	1	.....	

NOTE.—Bruce Mines and Algoma Ry. and part of Toronto Civic Car Lines are not in active operation.

The following tables A and B have been compiled for the purpose of showing the various subsidies voted since July 1, 1867, by the Province of Ontario to Railways constructed wholly or partly within the Province.

Table A sets forth the subsidies voted by the Province of Ontario to the various Railways therein mentioned. These subsidies, however, have not all been paid in cash. In some cases the Railways have received the whole amount in cash, others have received the whole amount in certificates of the Province of Ontario, bearing interest at the rate of $3\frac{1}{2}$ per cent. per annum, while others have received payment partly in cash and partly in certificates of Ontario with interest at $3\frac{1}{2}$ per cent.

Table B shows what cash the Railways have received, the amounts which the Province has paid in respect of the certificates, and the amount of outstanding certificates. The amounts set forth in the total column in Table B represent the amounts paid to Railway Companies respectively, together with the amount of the unredeemed certificates issued to such Railways. The difference between the gross sum of the subsidies voted and the total amount paid by the Government to Railways and the unpaid liability due by the Government in respect of such subsidies is made up of the interest at the rate of $3\frac{1}{2}$ per cent. for the term of years over which the payment of the Government is distributed.

Note.—These following statements are taken from the Public Accounts for the year ending 31st October, 1912.

TABLE A.
AID TO RAILWAYS FROM CONFEDERATION TO OCTOBER 31ST, 1912.

Name of Railway.	Miles.	Rate.	Subsidy Voted.
		\$ c.	\$ c.
Bay of Quinte.....	28.45	3,000 00	85,350 00
Belleville and North Hastings.....	22.	3,000 00	66,000 00
Brantford, Norfolk & Port Burwell.....	33.27	2,000 00	66,540 00
Bruce Mines & Algoma.....	17.	3,000 00	51,000 00
Canada Central.....	20.029	2,650 00	53,000 00
do.....	20.	2,650 00	53,000 00
do.....	7.531	2,650 00	19,957 15
Canada Southern.....	62.901	2,000 00	125,802 00
Central Counties.....	31.	2,000 00	62,000 00
do.....	7.	1,200 00	8,400 00
Central Ontario.....	50.500	3,000 00	151,500 00
Cobourg, Peterboro' & Marmora.....	9.37	2,000 00	18,740 00
Credit Valley.....	153.061	3,000 00	459,183 00
Canada Atlantic.....	65.72	4,000 00	262,880 00
Erie & Huron.....	40.556	2,000 00	81,112 00
Grand Trunk, Georgian Bay & Lake Erie.....	79.3	2,000 00	158,600 00
Grand Junction.....	45.86	3,000 00	137,580 00
do.....	20.	2,000 00	40,000 00
G.T.R. Assignee of Magnetawan River Railway	1.86	cash	10,000 00
Grand Trunk Pacific.....	188.16	2,000 00	376,320 00
Hamilton & North Western.....	95.464	2,500 00	238,660 00
do do.....	48.052	3,000 00	144,156 00
Hamilton & Lake Erie.....	33.48	2,000 00	66,960 00
Huntsville & Lake of Bays.....	1.50	cash	10,000 00
Irondale, Bancroft & Ottawa.....	44.77	3,000 00	134,310 00
James Bay.....	3.70	4,000 00	14,800 00
Kingston & Pembroke.....	20.	2,000 00	40,000 00
do.....	15.	2,650 00	39,750 00
do.....	11.58	3,250 00	37,635 00
do.....	13.74	7,000 00	96,180 00
do.....	28.42	8,000 00	237,360 00
Lake Simcoe Junction.....	26.50	2,000 00	53,000 00
Lindsay, Bobcaygeon & Pontypool.....	17.53	3,000 00	52,590 00
London, Huron & Bruce.....	69.146	2,000 00	138,292 00
Montreal and Ottawa.....	50.	2,000 00	100,000 00
Midland.....	20.40	2,000 00	40,800 00
do.....	19.60	2,250 00	44,100 00
do.....	14.53	4,000 00	58,120 00
North Simcoe.....	33.343	2,500 00	83,357 50
Northern Extension.....	42.72	2,000 00	85,440 00
do.....	27.68	4,000 00	110,720 00
Ontario & Rainy River.....	268.20	4,000 00	1,072,800 00
Ontario, Belmont & Northern.....	9.57	2,000 00	19,140 00
Ottawa, Arnprior & Parry Sound.....	149.43	3,000 00	448,290 00
Pembroke Southern.....	18.50	3,000 00	55,500 00
Prince Arthur's Landing.....	5.995	2,000 00	11,990 00
Prince Edward County.....	32.	2,500 00	80,000 00
Port Dover & Lake Huron.....	63.	2,000 00	126,000 00
Port Arthur, Duluth & Western.....	80.	3,000 00	240,000 00
Parry Sound Colonization.....	47.75	3,000 00	143,250 00
Stratford & Lake Huron.....	27.5	2,000 00	55,000 00
Toronto, Grey & Bruce.....	73.52	3,000 00	220,560 00
do.....	77.62	2,000 00	155,240 00
Toronto & Nipissing.....	33.439	2,000 00	66,878 00
do.....	12.778	3,000 00	38,334 00
Tillsonburg, Lake Erie & Pacific.....	19.108	2,000 00	38,216 00
Thessalon & Northern.....	1.929	cash	5,000 00
Victoria.....	33.442	4,000 00	133,768 00
do.....	22.310	8,000 00	178,480 00
Wellington, Grey & Bruce.....	120.638	2,000 00	241,276 00
Whitby, Port Perry & Lindsay.....	45.745	2,000 00	91,490 00
Ottawa & New York (International Bridge).....		certificates.	35,000 00
Dominion Bridge Co.(Interprovincial Bridge).....		certificates.	50,000 00
Totals.....	2,683.197		7,619,406 65

TABLE B.

AID TO RAILWAYS UP TO 31ST OCTOBER, 1912, FROM CONFEDERATION.

Name of Railway.	Miles.	Cash Payments, \$ c.	Certificates Paid, \$ c.	Certificates Outstanding, \$ c.	Total. \$ c.
Bellefleur and North Hastings.....	22,000	.....	114,206 40	.....	114,206 40
Brautford, Norfolk and Port Burwell	33 270	.....	129,353 60	.....	129,353 60
Bruce Mines and Algoma.....	17,000	1,920 00	23,216 03	68,349 57	93,485 60
Bay of Quinte.....	28,450	.....	33,836 12	125,392 68	159,228 80
Canada Central	47,560	125,957 15	.....	.....	125,957 15
Canada Southern.....	62,901	.....	244,559 20	.....	244,559 20
Central Counties.....	38,000	68,747 26	.....	.....	68,747 26
Central Ontario	50,500	73,500 00	35,889 94	109,628 46	219,018 40
Cobourg, Peterboro' and Marmora.....	9,370	18,740 00	.....	.....	18,740 00
Credit Valley	153,061	18,702 00	788,648 85	.....	807,350 85
Canada Atlantic.....	65,720	.....	454,887 60	.....	454,887 60
Erie and Huron	40,556	1,634 47	122,200 40	.....	123,834 87
Grand Trunk, Georgian Bay and Lake Erie	79,300	1,580 00	229,866 00	.....	231,446 00
Grand Junction	65,860	40,000 00	238,067 60	.....	278,067 60
Grand Trunk Railway as Assignee of Magnetawan Railway.....	1,860	10,000 00	.....	.....	10,000 00
Grand Trunk Pacific.....	188,160	.....	61,037 38	638,053 02	702,090 40
Hamilton and North Western.....	143,516	.....	727,697 20	.....	727,697 20
Hamilton and Lake Erie	33,480	66,960 00	.....	.....	66,960 00
Huntsville and Lake of Bays	1,500	10,000 00	.....	.....	10,000 00
Irondale, Bancroft and Ottawa.....	44,770	.....	100,404 72	150,164 88	250,569 60
James Bay Railway	3,700	.....	6,903 00	20,709 00	27,612 00
Kingston and Pembroke	88,740	213,522 50	393,423 20	.....	606,945 70
Lindsay, Bokenygreon and Pontypool.....	17,530	.....	19,622 88	78,491 52	98,114 40
Lake Simcoe Junction Railway	26 500	53,000 00	.....	.....	53,000 00
London, Huron and Bruce	69,146	.....	268,839 60	.....	268,839 60

TABLE B.—*Continued.*
AID TO RAILWAYS UP TO 31ST OCTOBER, 1912, FROM CONFEDERATION.—*Continued.*

Name of Railway.	Miles.	Cash payments. \$ c.	Certificates paid. \$ c.	Certificates outstanding. \$ c.	Total. \$ c.
Montreal and Ottawa.....	50.000	.....	68,094 40	118,465 60	186,560 00
Midland Railway	54.530	66,227 50	149,284 40	.....	215,511 90
North Simcoe Railway.....	33.343	.....	144,241 60	.....	144,241 60
Northern Extension Railway.....	70.400	196,188 00	.....	.....	196,188 00
Ontario and Rainy River (Canada Northern).....	268.200	.....	563,150 10	1,438,265 90	2,001,416 00
Ontario, Belmont and Northern.....	9.570	.....	14,290 24	21,435 36	35,725 60
Ottawa, Arnprior and Parry Sound.....	149.430	.....	347,458 48	470,233 52	817,692 00
Pembroke Southern.....	18.500	.....	36,239 28	67,301 52	103,540 80
Prince Arthur's Landing.....	5.995	.....	20,747 20	.....	20,747 20
Prince Edward County.....	32.000	.....	155,520 00	.....	155,520 00
Port Dover and Lake Huron	63.000	126,000 00	.....	.....	126,000 00
Port Arthur, Duluth and Western (Can. Northern).....	80.000	15,571 54	238,563 60	209,180 40	463,315 54
Parry Sound Colonization	47.750	.....	125,630 67	141,616 53	267,247 20
Strafford and Lake Huron	27.500	55,000 00	.....	.....	55,000 00
Toronto, Grey and Bruce.....	151.140	285,182 00	176,182 40	.....	461,364 40
Toronto and Nipissing	46.217	105,212 00	.....	.....	105,212 00
Tillsonburg, Lake Erie and Pacific	19.108	.....	28,496 49	42,798 71	71,295 20
Thessalon and Northern	1.929	5,000 00	.....	.....	5,000 00
Victoria	55.752	33,442 00	503,875 20	.....	537,317 20
Wellington, Grey and Bruce	120.638	241,276 00	.....	.....	241,276 00
Whitby, Port Perry and Lindsay	45.745	40,000 00	89,790 40	.....	129,790 40
Ottawa and New York (International Bridge) .....	.....	.....	19,589 28	45,708 32	65,297 60
Dominion Bridge Co. (Interprovincial Bridge).....	.....	.....	26,819 15	66,464 85	93,284 00
Totals	2,683.197	1,873,362 42	6,703,632 61	3,812,259 84	12,389,254 87

NOTE.—Present value of Railway Certificates outstanding, October 31st, 1912, \$2,443,774.09.

INDEX TO RAILWAY LEGISLATION.

LIST 2.

The following index has been made with the object of continuing in chronological order all the legislation passed by both the Dominion and Provincial Government since 1867, affecting railways situate wholly or partially within the Province of Ontario.

"List No. 2" was commenced on page 323 of our Third Annual Report. This addition will complete the index up to the year 1912, inclusive:

	Cap.	Year.
ABITIBI AND HUDSON BAY RAILWAY COMPANY:		
Dominion Statute	38	1909
Act respecting.		
ALGOMA CENTRAL RAILWAY COMPANY:		
Dominion Statute	50	1899
Act to incorporate.		
<i>Declared to be a work for the general advantage of Canada.</i>		
ALGOMA CENTRAL AND HUDSON BAY RAILWAY COMPANY:		
Dominion Statute	40	1909
Act respecting.		
Ontario Statute	70	1909
Act respecting.		
Dominion Statute	51	1910
Section 30.		
Dominion Statute	65	1910
Act respecting.		
Ontario Statute	17	1911
Section 16 and 17 and 18.		
Dominion Statute	34	1911
Act respecting.		
Dominion Statute	48	1912
Sections 10 and 33.		
ALGOMA EASTERN RAILWAY COMPANY:		
(Formerly Manitoulin and North Shore Railway Company.)		
Dominion Statute	48	1912
Section 11.		
Dominion Statute	63	1912
Act respecting.		
ARNPRIOR AND PONTIAC RAILWAY COMPANY:		
Dominion Statute	44	1909
Act to incorporate.		
BAY OF QUINTE RAILWAY COMPANY:		
Dominion Statute	67	1910
Act respecting.		
Dominion Statute	39	1911
Act respecting.		
BELLEVILLE RADIAL RAILWAY COMPANY:		
Ontario Statute	129	1909
Act to incorporate.		
Ontario Statute	122	1911
Act respecting.		
BERLIN AND BRIDGEPORT ELECTRIC STREET RAILWAY COMPANY, LIMITED:		
Ontario Statute	131	1912
Act respecting.		

BRACEBRIDGE AND TRADING LAKE RAILWAY COMPANY:

Ontario Statute	26	1910
Act to incorporate.		
Section 2.		
Dominion Statute	51	1910
Section 31.		
Ontario Statute	17	1911
Section 28 (2).		

BROCKVILLE, WESTPORT AND NORTHWESTERN RAILWAY COMPANY:

Dominion Statute	55	1909
Act respecting.		
Dominion Statute	47	1911
Act respecting.		

BRUCE MINES AND ALGOMA RAILWAY COMPANY:

Ontario Statute	91	1903
Ontario Statute	69	1909
Sec. 1 (a), Sec. 2 (a), Sec. 4 (b).		
Ontario Statute	139	1910
Act to amend Act respecting.		
Ontario Statute	17	1912
Section 44.		
Dominion Statute	48	1912
Section 36.		
Ontario Statute	132	1912
Act respecting.		

BUFFALO AND FORT ERIE FERRY AND RAILWAY COMPANY:

Ontario Statute	138	1910
Act to consolidate and amend Acts incorporating.		

BUFFALO, NIAGARA AND TORONTO RAILWAY:

Dominion Statute	49	1911
Act respecting.		

CAMPBELLFORD, LAKE ONTARIO AND WESTERN RAILWAY COMPANY:

Dominion Statute	90	1908
Act respecting.		
Dominion Statute	78	1910
Act respecting.		
Dominion Statute	51	1911
Act respecting.		

CANADA CENTRAL RAILWAY COMPANY:

Ontario Statute	130	1909
Act respecting.		
Ontario Statute	36	1912
Act respecting land grants to railways.		

CANADA AND MICHIGAN TUNNEL COMPANY:

Dominion Statute	93	1888
Act to incorporate.		
Dominion Statute	103	1891
Act respecting.		
Dominion Statute	101	1894
Act respecting.		
Dominion Statute	71	1895
Act to amend, and to change the name to the Canada and Michigan Bridge and Tunnel Company.		

CANADA AND MICHIGAN BRIDGE AND TUNNEL COMPANY:

Dominion Statute	42	1896
Act respecting.		
Dominion Statute	90	1900
Act respecting.		
Dominion Statute	44	1902
Act respecting.		

CANADIAN NORTHERN RAILWAY COMPANY:

Dominion Statute	92	1908
Act respecting.		
Dominion Statute	6	1911
Act respecting aid Vol. (1).		

CANADIAN NORTHERN ONTARIO RAILWAY COMPANY:

Dominion Statute	93	1908
Act respecting.		
Dominion Statute	63	1909
Act respecting.		
Ontario Statute	71	1909
Act respecting.		
Dominion Statute	79	1910
Act respecting.		
Dominion Statute	6	1911
Act respecting aid Vol. (1).		
Dominion Statute	57	1911
Act respecting.		
Dominion Statute	75	1912
Act respecting.		

CANADIAN NORTHERN QUEBEC RAILWAY COMPANY:

Dominion Statute	94	1908
Act respecting.		
Dominion Statute	64	1909
Act respecting.		
Dominion Statute	51	1910
Section 33.		
Dominion Statute	6	1911
Act respecting aid Vol. (1).		

CANADIAN PACIFIC RAILWAY COMPANY:

Ontario Statute	132	1910
See Act respecting Township of Tay.		

CANADIAN PACIFIC RAILWAY COMPANY AND THE GRAND TRUNK PACIFIC RAILWAY COMPANY AT FORT WILLIAM:

Dominion Statute	66	1909
Act respecting.		

CENTRAL RAILWAY COMPANY OF CANADA:

Dominion Statute	72	1909
Act respecting.		

CENTRAL ONTARIO RAILWAY COMPANY:

Ontario Statute	69	1909
Sec. 1 (b), Sec. 4 (c).		
Dominion Statute	84	1910
Act respecting.		
Ontario Statute	17	1911
Section 65 (c).		

CHATHAM, WALLACEBURG AND LAKE ERIE RAILWAY COMPANY:

Ontario Statute	100	1909
City of Chatham.		
Dominion Statute	65	1911
Act respecting.		

COBALT RANGE RAILWAY COMPANY:

Dominion Statute	73	1909
Act respecting.		

COBOURG, PORT HOPE AND HAVELOCK ELECTRIC RAILWAY COMPANY:

Ontario Statute	131	1909
Act to incorporate.		

COBOURG RADIAL RAILWAY COMPANY:

Ontario Statute	132	1909
Act to incorporate.		

COLLINGWOOD SOUTHERN RAILWAY COMPANY:

Dominion Statute	74	1909
Act respecting.		
<i>Declared to be a work for the general advantage of Canada</i>		
Dominion Statute	66	1911
Act respecting.		

DUNNVILLE, WELLANDPORT AND BEAMSVILLE ELECTRIC RAILWAY COMPANY:

Ontario Statute	123	1908
Ontario Statute	133	1909
Act respecting.		
Ontario Statute	140	1910
Act respecting.		
Ontario Statute	123	1911
Act respecting.		
Ontario Statute	133	1912
Act respecting.		

EASTERN ONTARIO ELECTRIC RAILWAY COMPANY:

Ontario Statute	134	1909
Act to incorporate.		

ERIE, LONDON AND TILLSONBURG RAILWAY COMPANY:

Dominion Statute	106	1908
Act respecting.		
Dominion Statute	51	1910
Cap. 37.		
Dominion Statute	96	1910
Act respecting.		
Dominion Statute	91	1912
Act respecting.		

ESSEX TERMINAL RAILWAY COMPANY:

Dominion Statute	98	1910
Act respecting.		

FORT ERIE AND BUFFALO BRIDGE COMPANY:

Dominion Statute	83	1909
Act to incorporate.		
<i>Declared to be a work for the general advantage of Canada</i>		

FORT WILLIAM TERMINAL RAILWAY AND BRIDGE COMPANY:

Dominion Statute	109	1908
Act respecting.		

GEORGIAN BAY AND SEABOARD RAILWAY COMPANY:

Ontario Statute	132	1910
See Act respecting Township of Tay.		
Dominion Statute	77	1911
Act respecting.		

GLENGARRY AND STORMONT RAILWAY COMPANY:

Ontario Statute	134	1912
Act to incorporate.		

GRAND TRUNK RAILWAY COMPANY OF CANADA:

Dominion Statute	87	1909
Act respecting.		
Dominion Statute	104	1910
Act respecting.		
Ontario Statute	131	1910
Act to confirm an agreement between City of Stratford and Grand Trunk Railway Company.		
Ontario Statute	133	1910
Act to confirm an agreement made between the Township of Tay and Grand Trunk Railway Company.		

GRAND TRUNK, GEORGIAN BAY AND LAKE ERIE RAILWAY COMPANY:

Ontario Statute	99	1911
Act respecting the Town of Owen Sound.		

GRAND TRUNK PACIFIC RAILWAY COMPANY:		
Dominion Statute	19	1909
Act to authorize a loan to the Grand Trunk Pacific Railway Company.		
Dominion Statute	66	1909
Act respecting.		
Dominion Statute	84	1909
Act respecting. (Lake Superior Branch.)		
Dominion Statute	115	1908
Act respecting. (Branch Lines Company.)		
GRAND VALLEY RAILWAY COMPANY:		
Ontario Statute	84	1911
Act respecting the City of Brantford.		
GUELPH AND GODERICH RAILWAY COMPANY:		
Dominion Statute	90	1909
Act respecting.		
Dominion Statute	87	1911
Act respecting.		
GUELPH JUNCTION RAILWAY COMPANY:		
Dominion Statute	107	1910
Act respecting.		
Ontario Statute	115	1910
See Act respecting City of Guelph.		
GUELPH RADIAL RAILWAY:		
Ontario Statute	115	1910
See Act respecting City of Guelph.		
Ontario Statute	124	1911
Act respecting.		
Ontario Statute	90	1911
Act respecting the City of Guelph.		
HAMILTON AND BARTON INCLINE RAILWAY COMPANY:		
Ontario Statute	118	1890
Act to incorporate.		
HAMILTON RADIAL ELECTRIC RAILWAY COMPANY:		
Dominion Statute	117	1908
Act respecting.		
HAMILTON, WATERLOO AND GUELPH RAILWAY COMPANY:		
Dominion Statute	118	1908
Act respecting.		
Dominion Statute	108	1910
Act respecting.		
Dominion Statute	89	1911
Act respecting.		
Dominion Statute	99	1912
Act respecting.		
HUMBER VALLEY ELECTRIC RAILWAY COMPANY:		
Ontario Statute	135	1912
Act to incorporate.		
HURONTARIO RAILWAY COMPANY:		
Ontario Statute	141	1910
Act to incorporate.		
HURON AND ONTARIO RAILWAY COMPANY:		
Dominion Statute	92	1909
Act respecting.		
Dominion Statute	94	1911
Act respecting.		

IMPERIAL TRACTION COMPANY:

Dominion Statute	96	1911
Act to incorporate.		
<i>Declared to be a work for the general advantage of Canada.</i>		

INTERNATIONAL RAILWAY COMPANY AND INTERNATIONAL TRACTION RAILWAYS:

Ontario Statute	125	1911
Act respecting.		
Dominion Statute	98	1911
Act respecting.		

INTERPROVINCIAL AND JAMES BAY RAILWAY COMPANY:

Dominion Statute	48	1912
Section 6.		
Dominion Statute	106	1912
Act respecting.		

IRONDALE, BANCROFT AND OTTAWA RAILWAY COMPANY:

Ontario Statute	17	1912
Section 45.		

IRON RANGE RAILWAY COMPANY:

Ontario Statute	142	1910
Act respecting.		
Ontario Statute	136	1912
Act respecting.		

JAMES BAY AND EASTERN RAILWAY COMPANY:

Dominion Statute	113	1910
Act to incorporate.		

KAWARTHA TRANSPORTATION COMPANY:

Ontario Statute	137	1912
Act to incorporate.		

KINGSTON, SMITH'S FALLS AND OTTAWA RAILWAY COMPANY:

Dominion Statute	51	1910
Section 39.		
Dominion Statute	116	1910
Act respecting.		

LAC SEUL, RAT PORTAGE AND KEEWATIN RAILWAY COMPANY:

Ontario Statute	69	1909
Sec. 2 (b), Sec. 4 (a).		
Dominion Statute	51	1910
Section 32.		
Ontario Statute	143	1910
Act respecting.		
Ontario Statute	17	1911
Section 65 (a).		
Ontario Statute	17	1912
Section 43.		
Dominion Statute	48	1912
Section 13.		
Ontario Statute	138	1912
Act respecting.		

LAKE ERIE AND NORTHERN RAILWAY COMPANY:

Dominion Statute	106	1911
Act to incorporate.		
<i>Declared to be a work for the general advantage of Canada.</i>		
Dominion Statute	48	1912
Section 35.		

LAKE HURON, OTTAWA AND QUEBEC JUNCTION RAILWAY COMPANY:

Ontario Statute	36	1912
Act respecting land grants to railways.		

LAKE SUPERIOR AND NORTHERN RAILWAY AND TRANSPORTATION COMPANY:

Ontario Statute	135	1909
Act to incorporate.		

LINDSAY, BOBCAYGEON AND PONTYPOOL RAILWAY COMPANY:		
Dominion Statute	123	1908
Act respecting.		
LINDSAY AND MINDEN RAILWAY COMPANY:		
Ontario Statute	139	1912
Act to incorporate.		
LONDON AND LAKE ERIE RAILWAY AND TRANSPORTATION COMPANY:		
(Formerly South-Western Traction Company.)		
Dominion Statute	120	1910
Act to incorporate.		
<i>Declared to be a work for the general advantage of Canada.</i>		
LONDON AND NORTHWESTERN RAILWAY COMPANY:		
Dominion Statute	100	1909
Act to incorporate.		
<i>Declared to be a work for the general advantage of Canada.</i>		
Dominion Statute	108	1911
Act respecting.		
LONDON STREET RAILWAY COMPANY:		
Ontario Statute	110	1909
City of London.		
MANITOULIN AND NORTH SHORE RAILWAY COMPANY:		
Dominion Statute	127	1908
Act respecting.		
Ontario Statute	72	1909
Act respecting.		
Dominion Statute	51	1910
Section 29.		
Dominion Statute	122	1910
Act respecting.		
Ontario Statute	17	1911
Section 15 (d) (2).		
Dominion Statute	111	1911
Act respecting changing its name to "The Algoma Eastern Railway Company."		
MIDLAND TERMINAL RAILWAY COMPANY:		
Ontario Statute	140	1912
Act respecting.		
MONARCH RAILWAY COMPANY:		
Ontario Statute	144	1910
Act to incorporate.		
Ontario Statute	141	1912
Act respecting.		
MONTREAL AND LAKE VICTORIA RAILWAY COMPANY:		
Dominion Statute	122	1912
Act to incorporate.		
MORRISBURG ELECTRIC RAILWAY COMPANY:		
Ontario Statute	136	1909
Act to incorporate.		
Ontario Statute	145	1910
Act respecting. Name changed to "Morrisburg and Ottawa Electric Railway Company."		
MORRISBURG AND OTTAWA ELECTRIC RAILWAY COMPANY:		
Ontario Statute	142	1912
Act respecting.		
MORRISBURG FERRY AND DOCK COMPANY:		
Dominion Statute	132	1910
Act to incorporate.		

MOUNT MCKAY AND KAKABEKA FALLS RAILWAY COMPANY:

Ontario Statute	101	1911
Act respecting the Municipality of the Township of Paipoonge.		
Ontario Statute	143	1912
Act respecting.		

NATIONAL TRANSCONTINENTAL RAILWAY:

Dominion Statute	38	1912
Act respecting.		
Dominion Statute	39	1912
Act to amend.		

NEW YORK, ST. LAWRENCE AND OTTAWA RAILWAY COMPANY:

Dominion Statute	67	1888
Act to incorporate.		

NIAGARA FALLS, WELLAND AND DUNNVILLE ELECTRIC RAILWAY COMPANY:

Ontario Statute	146	1910
Act to incorporate.		
Ontario Statute	144	1912
Act respecting.		

NIAGARA FRONTIER ELECTRIC RAILWAY COMPANY:

Ontario Statute	126	1911
Act respecting.		

NIAGARA PENINSULAR RAILWAY COMPANY:

Ontario Statute	137	1909
Act respecting.		

NIAGARA, ST. CATHARINES AND TORONTO RAILWAY COMPANY:

Dominion Statute	134	1908
Act respecting.		

NIAGARA, WELLAND AND LAKE ERIE RAILWAY COMPANY:

Dominion Statute	119	1911
Act to incorporate.		
<i>Declared to be a work for the general advantage of Canada.</i>		

NICKEL RANGE RAILWAY COMPANY:

Ontario Statute	147	1910
Act to incorporate.		

NIPIGON RAILWAY COMPANY:

Dominion Statute	51	1910
Section 34.		

NIPISSING CENTRAL RAILWAY COMPANY:

Dominion Statute	135	1908
Act respecting.		

NORTH MIDLAND RAILWAY COMPANY:

Ontario Statute	148	1910
Act respecting.		
Ontario Statute	145	1912
Act respecting.		

NORTHERN QUEBEC COLONIZATION RAILWAY COMPANY:

Dominion Statute	138	1910
Act to incorporate.		

ONTARIO AND ABITIBI RAILWAY COMPANY:

Dominion Statute	120	1911
Act to incorporate.		

ONTARIO, HUDSON'S BAY AND WESTERN RAILWAY COMPANY:

Dominion Statute	116	1909
Act respecting.		
Ontario Statute	26	1910
Section 20.		

Dominion Statute	121	1911
Act respecting.		
Ontario Statute	17	1911
Sections 17 and 18.		
ONTARIO INTERURBAN RAILWAY COMPANY:		
Ontario Statute	138	1909
Act respecting.		
ONTARIO-MICHIGAN RAILWAY COMPANY:		
Dominion Statute	122	1911
Act to incorporate.		
<i>Declared to be a work for the general advantage of Canada.</i>		
ONTARIO, NORTHERN AND TEMAGAMI RAILWAY COMPANY:		
Dominion Statute	51	1910
Section 35.		
Dominion Statute	123	1911
Act respecting		
ONTARIO AND OTTAWA RAILWAY COMPANY:		
Dominion Statute	139	1910
Act to incorporate.		
Dominion Statute	126	1912
Act respecting.		
ONTARIO, SAULT STE. MARIE RAILWAY COMPANY:		
Ontario Statute	17	1911
Section 64.		
ONTARIO WEST SHORE ELECTRIC RAILWAY COMPANY:		
Ontario Statute	139	1909
Act respecting.		
OSHAWA RAILWAY COMPANY:		
Ontario Statute	97	1911
Act respecting the Town of Oshawa.		
OTTAWA, BROCKVILLE AND ST. LAWRENCE RAILWAY COMPANY:		
Dominion Statute	140	1908
Act respecting.		
Dominion Statute	140	1910
Act respecting.		
Dominion Statute	127	1912
Act respecting.		
OTTAWA ELECTRIC RAILWAY COMPANY:		
Ontario Statute	98	1911
Act respecting the City of Ottawa.		
OTTAWA AND GATINEAU RAILWAY COMPANY:		
and to change its name to the Ottawa Northern and Western Railway Company.		
Dominion Statute	87	1894
Dominion Statute	31	1896
Dominion Statute	58	1897
Dominion Statute	83	1899
Dominion Statute	80	1901
OTTAWA AND LAKH MCGREGOR RAILWAY COMPANY:		
Dominion Statute	128	1912
Act to incorporate.		
Dominion Statute	129	1912
Act to amend Act to incorporate.		
OTTAWA, MONTREAL AND EASTERN RAILWAY COMPANY:		
Dominion Statute	141	1910
Act to incorporate.		
Dominion Statute	130	1912
Act respecting.		
Dominion Statute	131	1912
Act to amend Act respecting.		

OTTAWA, NORTHERN AND WESTERN RAILWAY COMPANY:

Dominion Statute	80	1901
Dominion Statute	89	1902
Dominion Statute	118	1909
Act respecting.		
Dominion Statute	143	1910
Act respecting.		
Dominion Statute	125	1911
Act respecting.		
Dominion Statute	132	1912
Act respecting.		

OTTAWA, RIDEAU VALLEY AND BROCKVILLE RAILWAY COMPANY:

Dominion Statute	144	1910
Act to incorporate.		

OTTAWA AND ST. LAWRENCE ELECTRIC RAILWAY COMPANY:

Ontario Statute	140	1909
Act to incorporate.		
Ontario Statute	128	1911
Act respecting.		

OTTAWA, SMITH'S FALLS AND KINGSTON RAILWAY COMPANY:

Ontario Statute	127	1911
Act to incorporate.		
Ontario Statute	146	1912
Act respecting.		

OWEN SOUND AND MEAFORD RAILWAY COMPANY:

Dominion Statute	141	1908
Act respecting.		

PACIFIC AND ATLANTIC RAILWAY COMPANY:

Dominion Statute	142	1908
Act respecting.		
Dominion Statute	145	1910
Act respecting.		
Dominion Statute	133	1912
Act respecting.		

PEOPLE'S RAILWAY COMPANY:

Ontario Statute	141	1909
Act to incorporate.		
Ontario Statute	149	1910
Act respecting.		
Ontario Statute	129	1911
Act respecting.		
Ontario Statute	90	1911
Act respecting the City of Guelph.		
Dominion Statute	129	1911
Act respecting.		
<i>Declared to be a work for the general advantage of Canada.</i>		

PETERBORO RADIAL RAILWAY COMPANY:

Ontario Statute	142	1909
Act respecting.		

PONTIAC CENTRAL RAILWAY COMPANY:

Dominion Statute	130	1911
Act respecting.		

PONTIAC AND RENFREW RAILWAY COMPANY:

Dominion Statute	66	1888
Act to incorporate.		

PORCUPINE RAND BELT ELECTRIC RAILWAY COMPANY:

Ontario Statute	147	1912
Act to incorporate.		

PORT ARTHUR AND FORT WILLIAM RAILWAY:		
Ontario Statute	106	1909
City of Fort William.		
Ontario Statute	118	1909
City of Port Arthur.		
Ontario Statute	88	1911
Act respecting the City of Fort William.		
PRINCE EDWARD AND HASTINGS RAILWAY COMPANY:		
Dominion Statute	137	1912
Act to incorporate.		
QUEBEC ORIENTAL RAILWAY COMPANY:		
Dominion Statute	126	1909
Act respecting.		
QUINZE AND BLANCHE RIVER RAILWAY COMPANY:		
Dominion Statute	127	1909
Act respecting.		
QUINZE RIVER AND OTTAWA RAILWAY COMPANY:		
Dominion Statute	140	1912
Act to incorporate.		
RAINY RIVER RADIAL RAILWAY COMPANY:		
Dominion Statute	152	1910
Act to incorporate.		
Dominion Statute	48	1912
Section 34.		
Dominion Statute	141	1912
Act respecting.		
ST. MARY'S AND WESTERN ONTARIO RAILWAY COMPANY:		
Dominion Statute	136	1909
Act respecting		
Dominion Statute	51	1910
Section 28.		
ST. THOMAS STREET RAILWAY COMPANY:		
Ontario Statute	150	1910
Act respecting.		
SANDWICH, WINDSOR AND AMHERSTBURG RAILWAY:		
Ontario Statute	130	1911
Act to amend.		
SAULT STE. MARIE AND ST. JOSEPH ISLAND RAILWAY COMPANY:		
Ontario Statute	143	1909
Act to incorporate.		
SIMCOE RAILWAY AND POWER COMPANY:		
Ontario Statute	145	1909
Act to incorporate.		
Ontario Statute	151	1910
Act respecting.		
Ontario Statute	148	1912
Act respecting.		
SIMCOE, GREY AND BRUCE RAILWAY COMPANY:		
Dominion Statute	140	1911
Act to incorporate.		
<i>Declared to be a work for the general advantage of Canada.</i>		
Dominion Statute	48	1912
Section 32.		
SOUTH ONTARIO PACIFIC RAILWAY COMPANY:		
Dominion Statute	157	1908
Act respecting.		
Dominion Statute	163	1910
Act respecting.		

Dominion Statute	142	1911
Act respecting.		
Dominion Statute	151	1912
Act respecting.		
SOUTH WESTERN TRACTION COMPANY:		
Ontario Statute	146	1909
Act respecting.		
STRATFORD RAILWAY COMPANY:		
Ontario Statute	131	1911
Act to incorporate.		
STRATFORD AND ST. JOSEPH RADIAL RAILWAY:		
Ontario Statute	144	1909
Act to extend time to construct railway.		
SUDBURY-COPPER CLIFF SUBURBAN ELECTRIC RAILWAY COMPANY:		
Ontario Statute	149	1912
Act to incorporate.		
SUPERIOR AND WESTERN ONTARIO RAILWAY COMPANY:		
Ontario Statute	69	1909
Sec. 2 (c), Sec. 4 (b).		
Dominion Statute	139	1909
Act to incorporate.		
<i>Declared to be a work for the general advantage of Canada.</i>		
TEMISKAMING AND NORTHERN ONTARIO RAILWAY:		
Ontario Statute	18	1909
Act to amend.		
Ontario Statute	15	1910
Act to amend.		
Ontario Statute	13	1911
Act respecting.		
Ontario Statute	13	1912
Act to amend.		
Dominion Statute	157	1912
THESSALON AND NORTHERN RAILWAY COMPANY:		
Dominion Statute	140	1909
Act respecting.		
<i>Declared to be a work for the general advantage of Canada.</i>		
TILLSONBURG, LAKE ERIE AND PACIFIC RAILWAY COMPANY:		
Dominion Statute	48	1912
Section 12.		
TILLSONBURG AND SOUTHERN COUNTIES RADIAL RAILWAY COMPANY:		
Ontario Statute	147	1909
Act to incorporate.		
Ontario Statute	26	1910
Act to incorporate.		
Section 6.		
TORONTO CIVIC CAR LINES:		
Section 569, Consolidated Municipal Act		1903
As amended by Section 4, Chap. 81		1910
TORONTO RAILWAY COMPANY:		
Ontario Statute	119	1911
Act respecting the City of Toronto..		
TORONTO EASTERN RAILWAY COMPANY:		
Dominion Statute	167	1910
Act to incorporate.		
TORONTO, HALIBURTON AND PEMBROKE RAILWAY COMPANY:		
Ontario Statute	152	1910
Act to incorporate.		

TORONTO INTERURBAN RAILWAY COMPANY:

Ontario Statute	132	1911
Act to incorporate.		

TORONTO, LINDSAY AND PEMBROKE RAILWAY COMPANY:

Dominion Statute	51	1910
Section 38.		
Ontario Statute	26	1910
Section 37.		
Dominion Statute	48	1912
Section 14.		

TORONTO, NIAGARA AND WESTERN RAILWAY COMPANY:

Dominion Statute	143	1909
Act respecting.		

TORONTO AND RICHMOND HILL STREET RAILWAY COMPANY:

Ontario Statute	94	1895
See Act respecting Township of York.		

TORONTO AND SCARBORO ELECTRIC RAILWAY, LIGHT AND POWER COMPANY, LIMITED:
(Incorporated by Letters Patent, 18th August, 1892.)

Ontario Statute	102	1893
Ontario Statute	65	1898
Ontario Statute	66	1898
Ontario Statute	93	1904
Respecting Toronto Railway Company.		
Ontario Statute	124	1906
See T. and Y. Railway Company.		

TORONTO SUBURBAN RAILWAY COMPANY:

Ontario Statute	148	1909
Act respecting.		
Ontario Statute	153	1910
Act respecting.		
Ontario Statute	133	1911
Act respecting.		
Ontario Statute	150	1912
Act respecting.		

TORONTO AND YORK RADIAL RAILWAY COMPANY:

Ontario Statute	134	1911
Act respecting.		
Ontario Statute	119	1911
Act respecting the City of Toronto.		

TRANS-CANADA RAILWAY COMPANY:

Dominion Statute	164	1908
Act respecting.		

WAHNAPIITAE RAILWAY COMPANY:

Ontario Statute	154	1910
Act to incorporate.		

WALKERTON AND LUCKNOW RAILWAY COMPANY:

Dominion Statute	149	1909
Act respecting.		
Dominion Statute	174	1910
Act respecting.		
Ontario Statute	113	1910
See Act respecting Town of Durham.		
Dominion Statute	147	1911
Act respecting.		

WEST ONTARIO PACIFIC RAILWAY COMPANY:

Dominion Statute	176	1910
Act respecting.		
Dominion Statute	167	1912
Act respecting.		

WESTERN CENTRAL RAILWAY COMPANY:

Ontario Statute	155	1910
Act respecting.		
Dominion Statute	150	1911
Act respecting.		

WESTERN ONTARIO RAILWAY COMPANY:

Dominion Statute	69	1888
Act to incorporate.		

WINDSOR, CHATHAM AND LONDON RAILWAY COMPANY:

Dominion Statute	171	1908
Act respecting.		
Dominion Statute	170	1912
Act respecting.		

WINDSOR, ESSEX AND LAKE SHORE RAPID RAILWAY COMPANY:

Dominion Statute	152	1909
Act respecting.		

WINNIPEG AND ATLANTIC RAILWAY COMPANY:

Dominion Statute	62	1892
Act to incorporate.		

ZENITH MINING AND RAILWAY COMPANY:

Dominion Statute	92	1899
Act to incorporate.		

Declared to be a work for the general advantage of Canada.

LIST OF TELEPHONE SYSTEMS, THE TARIFFS OF WHICH HAVE BEEN
APPROVED BY THE ONTARIO RAILWAY AND MUNICIPAL BOARD.

Name.	Post Office Address.
"A" Line Telephone Association	Richard's Landing.
Addison, Greenbush & Rocksprings Telephone Co.	Addison.
Admaston Telephone Company	Admaston Station.
Ahmie Telephone Company, Ltd.	Ahmie Harbour.
Albertville Telephone Co.	Kingsville.
Alnwick Rural Telephone Co., Ltd.	Roseneath.
Amaranth Telephone Co-operative Association	Grand Valley.
Apsley Telephone Co., Ltd.	Apsley.
Ashgrove Rural Telephone Co.	Ashgrove.
Aylmer & Mapleton Telephone Co.	Kingsmill.
Ayr Telephone Co., Ltd.	Ayr.
Barton & Binbrook Telephone Co., Ltd.	Hannon.
Bathurst & Drummond Telephone Co.	Lanark.
Belmont Telephone Co.	Belmont.
Ben Allen Telephone Co.	Owen Sound.
Bethesda & Stouffville Telephone Co., Ltd.	Gormley.
Blenheim & South Kent Telephone Co., Ltd.	Blenheim.
Bognor Telephone Co.	Bognor.
Bolton Telephone Co., Ltd.	Bolton.
Bond's Corners Telephone Co.	Woodstock.
Bowesville Mutual Telephone Association	Bowesville.
Bracebridge & Muskoka Lakes Telephone Co., Ltd.	Bracebridge.
Brougham & Gratton Telephone Co., Ltd.	Dacre.
Burgessville Telephone Co., Ltd.	Burgessville.
Burnt River Telephone Co., Ltd.	Burnt River.
Byron Telephone Co., Ltd.	Byron.
Cambray Telephone Union	Cambray.
Camden Telephone Co., Ltd.	Newburgh.
Canadian Machine Telephone Co., Ltd.	Brantford.
Canadian Machine Telephone Co., Ltd.	Peterboro.
Canadian Machine Telephone Co., Ltd.	Lindsay.
Caradoc-Ekfrid Telephone Co., Ltd.	Melburne.
Carlsruhe Telephone Association	Carlsruhe.
Central Clarke Telephone Co.	Kendal.
Central Dufferin Telephone Association	Colbeck.
Centre Thorah Telephone Association	Beaverton.
Chatsworth Rural Telephone Association	Chatsworth.
City View & Merivale Telephone Association	City View.
Cochrane Telephone Co., Ltd.	Cochrane.
Conn Telephone Co., Ltd.	Egerton.
Consolidated Telephone Co., Ltd.	Caledon.
Coulson-Jarratt Telephone Association	Coulson.
Crediton Rural Telephone Association	Crediton.
Delphi, Thornbury & Clarksburg Telephone Co.	Camperdown.
Derby Telephone Association	Squire.
Dereham Telephone Co., Ltd.	Brownsville.
Desboro Telephone Association	Desboro.
Doane Telephone Association	Newmarket.
Drummond Centre Telephone Association	Drummond.
Dunsford Telephone, Light & Power Co., Ltd.	Dunsford.
Dunville Consolidated Telephone Co., Ltd.	Dunville.
Dunville Consolidated Telephone Co., Ltd.	Caledonia.
Dunwich & Dutton Telephone Co., Ltd.	Dutton.
Durham Union Telephone Association	Orono.

Name.	Post Office Address.
East Luther Telephone Co., Ltd.	Grand Valley.
East Middlesex Telephone Co., Ltd.	Thorndale.
Edville & Dundonald Telephone Association	Colborne.
Eganville & Brudenell Telephone Association	Cormac.
Elgin-Chaffey's Lock Telephone Co.	Chaffey's Lock.
Elk Lake Telephone Co.	Elk Lake.
Enterprise Telephone Association	Steeltown.
Erie Telephone Co., Ltd.	Selkirk.
Ernestown Rural Telephone Co., Ltd.	Odessa.
Falkirk Telephone Co.	Falkirk.
Fenella Rural Telephone Co., Ltd.	Fenella.
Fifth Side Line Telephone Association	Tenby Bay.
Fingal Telephone Co., Ltd.	Fingal.
Fordwich Rural Telephone Co., Ltd.	Fordwich.
Fourteenth of Brant Telephone Association	Chesley.
Fraser Telephone Association	Woodstock.
Gillies Hill Telephone Association	Chesley.
Glengarry Telephone Association	Lochiel.
Goderich Rural Telephone Co., Ltd.	Goderich.
Gore Mutual Telephone Association	Harrow.
Gowas & Shore Road Telephone Co.	Richard's Landing.
Green Hill Telephone Co.	Markdale.
Greenwood Telephone Association	Steeltown.
Haldimand Telephone Co., Ltd.	The Gully.
Halton Telephone Co., Ltd.	Hornby.
Hamilton Rural Telephone Co., Ltd.	Cold Springs.
Harrietsville Telephone Association, Ltd.	Harrietsville.
Harwood Rural Telephone Association	Harwood.
Hastings Telephone Co.	Gilead.
Hawthorne Hill Rural Telephone Co., Ltd.	Palmerston.
Hazledean Telephone Co., Ltd.	Hazledean.
Heckston Telephone Co., Ltd.	Heckston.
Highland Telephone Co., Ltd.	Blackbank
Highland Telephone Co.	Milberta.
Hopetown Telephone Association	Hopetown.
Houghton & Bayham Telephone Co.	Fairground.
Houghton, Bayham & Tillsonburg Telephone Association	Kinglake.
Houghton & Walsingham Telephone Co.	Port Rowan.
Howick Telephone Co., Ltd.	Gorrie.
Huron Line Telephone Co.	Richard's Landing.
Hymers Telephone Co., Ltd.	Hymers.
Ingersoll Telephone Co., Ltd.	Ingersoll.
Ingleside Telephone Association	Woodstock.
Innerkip Rural Telephone Association	Innerkip.
Innisfil Telephone Association	Lefroy.
Inwood Rural Telephone Co., Ltd.	Inwood.
Johnston & Brandon Telephone Co.	Cannington.
Kashe-Sparrow Telephone Association	Sparrow Lake.
King Telephone Co., Ltd.	King.
King Township Telephone Association	Kettleby.
Lake Shore Mutual Telephone Association	Kincardine.
Lanark & Carlton Counties Telephone Co., Ltd.	Almonte.
Lanark & Ramsay Telephone Association	Innisville.

Name.	Post Office Address.
Lansdowne Rural Telephone Co., Ltd.	Lansdowne.
Lavant & Dalhousie Telephone Association	Lavant Station.
Leeds & Frontenac Telephone Association	Seeley's Bay.
Leeds & Grenville Telephone Co., Ltd.	North Augusta.
Leith & Annan Telephone Association	Annan.
Leitrim Telephone Association	Leitrim.
Lennox Telephone Co., Ltd.	Gosport.
Lucknow & Kinloss Telephone Association	Kinlough.
Lyndhurst Rural Telephone Co.	Lyndhurst.
Madawaska Telephone Association	Burnstown.
Malahide & Bayham Telephone Co., Ltd.	Bayham.
Mallorytown Independent Telephone Corporation	Mallorytown.
Manilla Northern Telephone Co.	Manilla.
Manitoulin & North Shore Telephone Co., Ltd.	Little Current.
Mapleshade Telephone Association	Woodstock.
Markham & Pickering Telephone Co., Ltd.	Whitevale.
Marysborough Telephone Co., Ltd.	Moorefield.
Marysburgh Telephone Association	Milford.
McCool-Thornloe Telephone Co.	Thornloe.
McKillop, Logan & Hibbert Telephone Co., Ltd.	Staffa.
McNab Telephone Association	White Lake.
Minto Rural Telephone Co., Ltd.	Harriston.
Mississippi Telephone Co., Ltd.	Lanark.
Molesworth Independent Telephone Co., Ltd.	Molesworth.
Monk Telephone Co., Ltd.	Carp.
Mono Mills Telephone Association	Mono Mills.
Moorsville Telephone Association	Crediton.
Mornington & Wellesley Telephone Co., Ltd.	Millbank.
Moscow Rural Telephone Co.	Moscow.
Mount Albert Telephone Co., Ltd.	Mount Albert.
Mount Carmel & Centralla Telephone Association	Centralla.
Mount Forest, Wellington & Gray Telephone Co., Ltd.	Mount Forest.
Mount Pleasant Telephone Co.	Castleton.
Nelson Telephone Co., Ltd.	Lowville.
New California Rural Telephone Association	Kingsville.
New Dundee Rural Telephone Co., Ltd.	New Dundee.
New Glasgow Telephone Co., Ltd.	Aldboro.
Niagara District Telephone Co., Ltd.	Jordan Station.
Nissouri Telephone Co., Ltd.	Lakeside.
Noisy River Telephone Co., Ltd.	Creemore.
Norfolk County Telephone Co., Ltd.	Waterford.
Norfolk & Tillsonburg Telephone Association	Mabee.
Norland Independent Telephone Association	Coboconk.
Northcote Farmers' Telephone Association	Northcote.
North Brant Telephone Association	Chesley.
North Huron Telephone Co., Ltd.	Wingham.
North Wellington Telephone Co., Ltd.	Arthur.
Oakview Telephone Co., Ltd.	Stayner.
Omemee Telephone Association	Omemee.
Oro Telephone Co., Ltd.	Hawkestone.
Orr-Steinhoff Telephone Association	Mickle.
Ottawa Valley Rural Telephone Co., Ltd.	Kars.
Park Hill Rural Telephone Association	Park Hill.
Peerless Telephone Association	Woodstock.
Penhurst Telephone Association	Woodstock.
People's Telephone Co., of Forest, Ltd.	Forest.

Name.	Post Office Address.
People's Telephone & Telegraph Co., Ltd.	Maynooth.
People's Mutual Telephone Co.	Bethel.
Pine Grove Telephone Association	Orillia.
Pioneer Telephone Association	Woodstock.
Plum Hollow & Eloida Telephone Association	Athens.
Porcupine Telephone Lines, Ltd.	South Porcupine.
Port Hope Telephone Co., Ltd.	Clark.
Princeton & Drumbo Telephone Co., Ltd.	Princeton.
Progressive Telephone Association	Sherkstone.
Queen's Line Telephone Association	Queen's Line.
Rainy River International Telephone Co., Ltd.	Rainy River.
Ravenscliffe Telephone Co., Ltd.	Ravenscliffe.
Richards Landing Telephone Club	Richard's Landing.
Rideau View Telephone Association	Rideau View.
Rockwood-Oustic Telephone Co.	Oustic.
Romney Telephone System	Wheatley.
Ronald's Telephone System	Minesing.
Rural Telephone Co., of Kitley, Ltd.	Newbliss.
St. Mary's, Kirkton & Exeter Telephone Co., Ltd.	Kirkton.
St. Mary's-Medina Telephone Co., Ltd.	Medina.
St. Williams and Forestville Telephone Association	St. Williams.
Salem Telephone Association	Bowmanville.
Salem Telephone Co.	Allenford.
Salkeld-Andrews Telephone Association	Goderich.
Saugeen Telephone Association	Hanover.
Scarboro Independent Telephone Co., Ltd.	Highland Creek.
Schomberg Telephone Co., Ltd.	Schomberg.
Scotch Line & Micaville Telephone Association	Allan's Mills.
Sombra Township Telephone Association	Wilkesport.
Southwold & Dunwich Telephone Co., Ltd.	Iona Station.
South Bayham & Malahide Telephone Association	Lake View.
South Branch Telephone Association	Walkerton.
South Bruce Rural Telephone Co., Ltd.	Belmore.
South Elderslie Telephone Association	Chesley.
South Lambton Telephone Co., Ltd.	Sombra.
South Leeds & Pittsburg Telephone Co., Ltd.	Gananoque.
South Malahide Telephone Co., Ltd.	Aylmer.
Sprague Telephone System	Mountain View.
Springbank Telephone Co., Ltd.	Fordwich.
Spring Creek Telephone Association	Woodstock.
Stratton Telephone System	Stratton Station.
Sunderland Telephone Co., Ltd.	Sunderland.
Sunny Valley Telephone Co.	Chatsworth.
Sutton & North Gwillimbury Telephone Association	Belhaven.
Tarentorus Telephone Co., Ltd.	Sault Ste. Marie.
Temiskaming Telephone Co., Ltd.	New Liskeard.
Tenth Side Line Telephone Co.	Richard's Landing.
Thamesville Telephone Co., Ltd.	Thamesville.
Thedford, Arkona & East Lambton Telephone Co., Ltd.	Thedford.
Tilbury Telephone Co., Ltd.	Tilbury.
"Ungers" Telephone System	St. Williams.
Urban & Rural Telephone Co., Ltd.	Bothwell.
Uxbridge & Scott Telephone Co., Ltd.	Uxbridge.

Name.	Post Office Address.
Violet Hill Telephone Association	Violet Hill.
Wallacetown & Lake Shore Telephone Co., Ltd.	Port Talbot.
Walsingham Centre & Port Rowan Telephone Association	Walsingham Centre.
Welland County Telephone Co., Ltd.	Bridgeburg.
West Flamboro Telephone Association	West Flamboro.
West Garafraxa Telephone Co., Ltd.	Belwood.
West Williams Rural Telephone Association, Ltd.	Sable.
Wheatley Telephone Co., Ltd.	Wheatley.
Wlarton-Lake Charles Telephone Association	North Keppel.
Willowdale Rural Telephone Co., Ltd.	Hurdman's Bridge.
Woodbridge & Vaughan Telephone Co., Ltd.	Maple.
Woodville Glen Telephone Association	Woodville.
Wroxeter Rural Telephone Co., Ltd.	Wroxeter.
Yarker Rural Telephone Co.	Yarker.
Yarmouth Rural Telephone Co., Ltd.	New Sarum.
Zorra Telephone Association	Embro.

SYSTEMS OPERATED UNDER INDIVIDUAL OWNERSHIP.

P.O. Address.

Babe & White Shelburne.
 Beatty, Dr. A. C. Garden Hill.
 Benn, J. L. Long Lake.
 Berwick, Dr. Grand Valley.
 Blanchard, Dr. E. Cannington.
 Bowman, E. Elmwood.
 Boyd, Robert W. South Mountain.
 Boynton, Dr. Pepperlaw.
 Brewster, R. S. Beeton.

Cadman & Milling Napanee.
 Campbell, W., & Sons. Duntroon.
 Campsall, W. E. Westport.
 Chamberlain, M. H. Wheatley.
 Chevrler, A. Chelmsford.
 Conway, Thos. Dresden.
 Coulson, J. Newcastle.
 Crews, J. W. Trenton.

Davis, H. J. Woodstock.
 Davidson, W. H. Nanticoke.
 Dobson, Alex. Beaverton.

Edgar, R. H. Bowling Green.
 Ernst, J. P. New Hamburg.

Ferguson, Dr. J. S. Courtright.
 Fritz & Brisco Napanee.
 Glasgow, A. E. Cannamore.

Gillies, William Tobermory.
 Glaister, W. Wellesley.
 Gould & Isaacs Fenelon Falls.
 Greenwood, Dr. A. B. Sutton West.
 Guest, Allen Douglas.

Halliday, M. A. Chesley.
 Hardinge, J. R. Coe Hill.
 Hartman, C. W. Clarksburg.
 Henderson, Dr. Cannington.
 Heric, V. St. Clements.
 Hyndman, H. K. Exeter.

Knister, Dr. C. E. Comber.

Lang & Lang Granton.
 Layman, H. C. Kingsville.
 Leonard, James Leamington.
 Lyons, A. A. Berkeley.

P.O. Address.

Marsh, J. Coldstream.
 McAsh, Dr. J. Tara.
 McEachern, Dr. D. Linwood.
 McGillicuddy & Zavitz. Watford.
 McGuire, W. G. Elmvale.
 McKenzie, John Keward.
 McNeill, Dr. D. G. Arva.
 Meek, W. H. Port Rowan.
 Mellow, Dr. F. E. Saintfield.
 Mills, G. R. Thamesford.
 Monteith-Dempsey Stratford.
 Moore, J. J. Brooklyn.
 Moore, James Listowel.
 Morgan, M. C., & R. M. Kerrwood.
 Morningstar, E. D. Arkona.

Nichols, A. E. Fergus.
 Noble, C. T. Sutton West.

Parker, Dr. F. Milverton.
 Paul & Eckert Sebringville.
 Porte, W. W. Brighton.

Quinlan, Dr. Stratford.

Reid, Norman Westmeath.
 Reinke, F. W. Ancaster.
 Richardson Bros. Nipissing.
 Russell, Dr. A. L. Ballieboro.
 Scratch & Palmer Kingsville.
 Shaw, C. O. Huntsville.
 Sutherland, J. W. Katrine Station.
 Swales, Cecil Warton.

Todd & Darling Goodwood.
 Turner, Dr. H. A. Millbrook.

Weidenhammer, Dr. F. J. Hawkesville.
 Wightman, R. Clifford.

Zeller, E. Zurich.

SYSTEMS OPERATING UNDER PART II. OF "THE ONTARIO TELEPHONE ACT."

Township.	Secretary.	P. O. Address.
Blyth	A. Elder	Blyth.
Brooke	J. D. Mackenzie	Alvinston.
Bruce	J. B. Struthers	Underwood.
Brussels, Morris and Grey...	M. Black	Brussels.
Chinguacousy	Robert Kee	Cheltenham.
Colborne	E. H. Walters	Benmiller.
Colchester North	T. W. Weyburn	Essex.
Dawn	W. J. Slatcher	Rutherford.
Euphrasia	T. J. Lawcett	Wodehouse.
Euphrasia (Beaver Valley)..	T. G. Idle	Thornbury.
Flos	C. S. Burton	Elmvale.
Goderich	O. W. Potter	Porter's Hill.
Gosfield, North	W. H. Noble	Cottam.
Harvey	David Weir	Lakehurst.
Hay	Fred. Hess, Sr.	Zurich.
Hilton and Jocelyn.....	E. Crowder.....	Carterton.
Huron and Kinloss	Angus Martyn	Ripley.
Johnson	W. H. Butterworth	Desbarats.
Korah	J. A. McQueen	Sault Ste. Marie West.
Laird	Alex. Stewart	Bar River.
Maidstone	W. R. Phillips	Maidstone.
McKillop	J. M. Govenlock	Winthrop.
Medonte	T. D. Robinson	Moonstone.
North Easthope	Geo. McCallum	Shakespeare.
Oliver	H. Gorton	Murillo.
Osprey	G. W. Ross	Maxwell.
Paipoonge	A. W. Trewin	Slate River.
Rochester	M. N. Mousseau	South Woodslee.
Sandwich South	Jas. McAuliffe	Maidstone.
St. Vincent	Geo. G. Alberty	Meaford.
Tarbutt & Tarbutt Add'l...	P. T. McLean	MacLennan.
Tay	G. W. Allison	Victoria Harbor.
Tilbury West	Chas. Clark	Comber.
Tuckersmith	A. Archibald	Egmondville.

MUNICIPAL TELEPHONE UNDERTAKINGS.

Particulars to Dec. 31st, 1911.	Fort William.	Port Arthur.	Kenora.
Date of Installation.....	1902	1903	
Miles of wire.....	3,701	5,140	
(a) On poles	1,235	2,940	
(b) Underground	2,461½	2,200	
(c) Submarine	4½		
Rates for Service:			
Business.....	\$30, \$36, & \$38	\$30	
Residence.....	\$15 & \$18	\$12 & \$15	
Average messages per day	19,012	16,202	
No. of circuits	2,875	2,100	
No. of subscribers	1,650	2,042	No report.
Capital Account:			
Total Assets.....	\$231,332 52	\$171,690 82	
Total Liabilities.....	202,024 95	146,032 34	
Sinking Fund	37,050 97	5,666 40	
Revenue Account:			
Gross Income	\$36,468 92	\$30,623 92	
Expenses	20,327 07	19,468 66	
Gross gain from operation.....	\$16,141 85	\$11,155 26	
Interest, Sinking Fund and Reserve for bad debts	19,241 92	12,866 78	
Net loss for year 1911.....	3,100 07	1,711 22	

TELEPHONE

Summary of Returns from Telephone Companies and Individual

Name of System.	Date of Organization.	Cost of System to date.	Number of Telephones.	Miles of Poles.	Miles of Circuit.	Rates per	
						Business.	Residence.
Addison Independent Telephone Co.,....	1908	\$ 10,000	170	45	90	\$	\$
Admaston Telephone Association	1910	900	18	9	11		
Alnwick Rural Telephone Co., Limited..	1908	3,000	75	30	32		
Ahmie Telephone Co., Limited	1907	8,977	74	....	170	15 00	10 00
Ayr Rural Telephone Co., Limited	1908	7,014	129	54	110		
Barton and Binbrook Tel. Co., Limited..	1908	12,134	134	31	135		
Ben Allen Telephone System	1910	500	6	3	3		
Blenheim & South Kent Tel. Co., Limited	1907	33,729	600	150	192	12 00	12 00
Bolton Telephone Co., Limited	1908	42,968	620	174	895	15 00	15 00
Bond's Corners Telephone Association..	1910	290	11	....	....		
Bowman Telephone System	1909	1,000	81	25	25		
Brougham and Gratton Tel. Co., Limited	1907	2,100	28	20	20		
Burgessville Tel. Co. of Ontario, Limited	1905	20,489	494	124	249	15 00	12 00
Belmont Tel. Co-operative Association..	1905	2,500	185	70	85		12 00
Cambray Telephone Union.....	1908	4,350	124	51	55½		
Cadman and Milling Private Line	1909	184	2	....	1½		
Camden Independent Tel. Co., Limited..	1910	7,812	172	50	51	10 00	10 00
Carlsruhe Telephone Co.	1903	250	3	4½	4½		
Centre Thorah Telephone Association ..	1909	200	9	7	7		
Chamberlain Private Telephone System	1907	5,000	145	16½	113		
Chatsworth Rural Telephone Co.....	1909	5,140	96	30	65		
Coulson-Jarratt Telephone Association..	1910	2,100	30	24	24		
Crediton Telephone Association	1910	5,000	110	70	100	10, 12, 20	10, 12, 15
Crew's Private Line	1909	500	5	4	4		
Davidson's Private Wire	1905	250	3	7	7		
Derby Telephone Association	1909	4,000	85	19	37		
Dereham Telephone Co., Limited.....	1907	10,782	245	46	116		
Dresden Rural Telephone System.....	1909	21,708	348	115	420		
Drummond Centre Tel. Association	1909	2,800	64	30	30		
Dunsford Tel., Light & Power Co-op. Ass'n	1907	6,000	106	30	52		
Durham Union Telephone Co.	1906	8,000	256	130	206		
Dunwich and Dutton Tel. Ass'n, Limited	1906	4,800	194	90	90		
Elk Lake Telegraph and Telephone Co..	1909	5,500	62	17	94	25 00	25 00
East Middlesex Telephone Co., Limited.	1906	15,970	291	83	120	10, 11, 12	10, 11, 12
Edgar, Robert Henry	1906	4,500	260	125	....	5 00	5 00
Edville and Dundonald Telephone Co. .	1907	3,162	81	42	42		
Enterprise Telephone Association	1908	....	5	2½	2½		
Erie Telephone Co., Limited	1906	61,323	1244	250	507	15 00	15 00
Ernst, J. P., Line	1907	....	203	60	....	15, 20	15, 20
Falkirk Tel. Co-operative Association ..	1907	10,000	195	116	126		
Fraser Telephone Association.....	1910	400	13	3	3		
Fort Frances Telephone Co.....	1912	30,975	276	89	133	35 00	20 00
Gillies System, William.....	....	3,000	25	....	85	15 00	15 00
Glaister Telephone System	1907	16,000	220	72	113	12 00	12 00
Gore Mutual Telephone Company	1908	351	12	1½	1½		

SYSTEMS.

Owners of Telephone Lines up to December 31st, 1912.

Annum.	Remarks.
Rural.	
\$	
5 00	Subscribers buy \$50 share and pay cost of operation.
4 00	Subscribers buy \$45 share and pay cost of operation.
5 00	Each subscriber holds \$50 stock.
10 00	Including "Bell," at Parry Sound \$20, at Burk's Falls \$15.
15 00	
18 00	
.....	Subscribers share cost on co-operative principle.
12 to 16	Selective ringing, 1 ring \$16, 2 rings \$14, 4 rings \$12.
12 00	
5 64	Subscribers share cost on co-operative principle.
8 to 10	\$8 to subscribers who purchase telephone at \$15.
35 00	
12 00	Individual line \$17.
10 00	Subscribers purchase telephone. Subscribers taking \$20 stock pay \$8 per annum
1 80	Subscribers purchase shares varying from \$32 to \$55.
5 00	Rent space on G. N. W. Tel. Co. poles and pay "Bell" Co. \$5 for switching.
10 00	
.....	Subscribers share cost on co-operative principle.
12 00	Shareholders purchase telephone and pay cost of switching only.
12 00	
13 00	
12 00	
12 00	Local rates individual line, bus. \$20, res. \$15, party lines \$10 and \$12.
25 00	Subscribers build and equip line. Pay "Bell" Co. \$25 per annum.
.....	Partnership. 10 cents to Jarvis ("Bell").
10 00, 14 50	Stockholders \$10 per annum.
12 00	
15 00	
3 00	Subscribers purchase stock (\$15) and telephone (\$16).
10 00	Second telephone \$6 per annum.
*0 50 †1 00	Subscribers pay \$2.50 entrance fee, build and equip lines. *Switching fee for metallic lines; †for grounded lines; plus 1 cent per call during office hours, 5 cents at other times.
6 00	Subscribers take \$50 stock and purchase telephone.
.....	Mine telephones \$50; or, if subscribers contribute towards cost of constructing line, \$35.
12 00	Business and residence, 2 and 4 party lines, \$11 and \$10 respectively. Holders of two shares of stock on rural lines, \$10.
5 00	Subscribers purchase telephone.
15 00	Or \$25 first year and \$12 a year after. Night service \$2 extra.
9 60	Rate includes \$7.60 to "Bell" Co. for rent of wire and connection at Sault Ste Marie.
12 00	Business and residence telephone on same line \$27.
15 00	Party line business and residence telephones \$15.
12 00	Individual line \$20, two-party line \$15. Subscribers build own line in excess of one quarter mile.
5 00	Subscribers share cost on co-operative principle, and pay "Bell" Co. \$5 for switching
.....	Two-party residence telephones \$15.
15 00	
12 00	
4 00	\$4 paid to "Bell" Co. for rent of wire and switching. Subscribers share cost on co-operative principle.

TELEPHONE

Summary of Returns from Telephone Companies and Individual

Name of System.	Date of Organization.	Cost of System to date.	Number of Telephones.	Miles of Poles.	Miles of Circuit.	Rates per	
						Business.	Residence.
		\$				\$	\$
Gould, D., Private Line	1908	1,175	14	7	7	.....	.....
Greenwood, A. B., Telephone System ..	1908	600	16	12	12	.....	.....
Glasgow, A. E., Independent Tel. Co....	1911	14,000	270	92	148	15 00	15 00
Goderich Rural Telephone Co., Limited.	1910	40,618	409	190	387	15 00	15 00
Haldimand Rural Tel. Co., Limited	1906	5,000	108	60	60	.....	.....
Halton Telephone Co., Limited	1909	13,000	216	90	54	.....	.....
Highland Telephone Co. (Milberta).....	1911	1,200	69	31	31	.....	.....
Harrietsville Tel. Association, Limited.	1903	12,400	399	121	196	.....	.....
Henderson's Private Telephone Line....	.....	800	24	17	17	.....	.....
Heric's, V., Telephone Line.....	1909	2,000	38	9	9	15 00	10 00
Highland Telephone Co., Limited	1910	3,000	52	25	37	.....	15 00
Houghton and Bayham Tel. Co., Limited	1905	2,400	179	57	101	.....	.....
Houghton & S. Walsingham Tel. Co-op. Association, Limited	1906	1,000	50	20	20	.....	.....
Hyndman's Private Line	1907	2,500	42	17	17	.....	.....
Houghton, Bayham & Tilsonburg Tel. Association, Limited	1907	4,500	112	66	80	.....	.....
Ingersoll Telephone Co., Limited	1906	95,000	1062	132	594	17, 18, 20	12.50, 13.50, 15
Innerkip Rural Tel. Co., Limited	1907	31,995	463	160	447	.....	.....
Innisfil Telephone Association	1910	3,125	76	23	33	.....	.....
Inwood Rural Telephone Co., Limited ..	1910	14,395	328	88	132	12 00	12 00
King Telephone Co., Limited	1907	9,500	217	56	103	.....	.....
Kashe-Sparrow Lake Telephone Line ..	1908	300	8	3	3	.....	.....
Lambton Telephone Co., Limited	1911	13,900	153	55	140	12 00	12 00
Lanark & Carlton Counties Tel. Co., Ltd.	1909	17,125	261	135	135	.....	.....
Lansdowne Rural Tel. Co., Limited	1906	12,000	324	100	113	10 00	10 00
Leith & Annap Telephone Club	1908	3,068	78	46	46	.....	.....
Lennox Telephone Co., Limited	1908	4,500	72	26	46	.....	.....
Lyndhurst Rural Tel. Co., Limited	1909	11,150	172	35	61	.....	.....
Lavant-Dalhousie Tel. Association	1909	3,000	44	45	45	.....	.....
Leeds & Grenville Ind. Tel Co., Limited	1908	31,601	500	135	577	10 00	10 00
Layman Private Lines	1909	4,030	128	14	36	.....	.....
Madawaska Telephone Association	1909	1,200	43	19	19	.....	.....
Malahide & Bayham Tel. Ass'n, Limited	1909	7,200	400	300	300	.....	.....
Mallorytown Ind. Tel. Corporation	1908	25,828	280	50	130	.....	.....
Marysburg Telephone Co.	1907	10,000	160	135	165	15 00	12 00
McCool-Thornloe Telephone Co.	1910	730	41	25	28	.....	.....
McKenzie Rural Telephone Line	1910	830	13	9	9	.....	.....
McNab Telephone Association	1910	1,290	23	21	21	.....	.....
Meek, W. H., Private Line	1907	175	5	5	5	.....	.....
Mills' Telephone Line	1904	6,000	105	33	50	.....	.....
Minesing Telephone Association	1913	2,500	81	20	26	.....	.....
Monk Rural Telephone Co., Limited	1909	33,917	415	150	300	.....	.....
Moore and Moore Telephone Line	1892	1,000	13	16	16	.....	.....
Moorsville Telephone System	1911	2,000	33	30	30	.....	.....
Morningstar's, E. D. Line	1910	8,000	247	51	94	10, 12	10, 12
Moscow Rural Telephone Co.	1910	2,000	50	25	25	.....	.....
Mount Albert Telephone Co., Limited ..	1906	18,598	408	165	290	12 00	12 00
Mount Forest, Wellington & Grey Tel. Co., Limited	1908	4,000	70	60	62	.....	.....

SYSTEMS—Continued.

Owners of Telephone Lines, up to December 31st, 1912.

Annum.	
Rural.	Remarks.
\$	
12 00	
10 00	\$8 to subscribers purchasing telephone.
15 00	
13 00	Subscribers in Blyth area \$10.
10 00	
15 00	Subscribers who purchase telephone \$5 a year. Shareholders purchase one \$10
2 00	share and pay entrance fee of \$35.
9, 12	Subscribers take \$20 stock and purchase telephone.
8 00	Subscribers purchase telephones. Party line telephones \$9 a year.
10 00	
15 00	
4 00	Subscribers purchase telephones, and two shares of stock at \$5.
3 00	
12 00	Subscribers purchase telephones and also take stock.
5 25	Subscribers must purchase telephones and two \$5 shares.
15 00	Business, two-party \$18, four-party \$17. Residence, two party \$13.50, four-party
12 00	12.50.
4 50	
12 00	Business and residence telephone, combined rate \$20.
12 00	Individual line \$15 per annum.
12 00	Subscribers purchase telephone.
12 00	
10, 12 50	Shareholders \$10 per annum, if holders of four \$10 shares.
10 00	Holders of \$50 stock assessed for actual cost of operation; 1912 assessment was \$8.
10, 12 50	Shareholders \$10 per annum, if holders of three shares at \$6.
12 50	
.....	Subscribers purchase \$50 stock, in half-yearly instalments of \$5.
8 00	Subscribers purchase telephone, and furnish poles in payment for stock.
10 00	Subscribers take \$25 stock.
12 00	
3 00	Subscribers must take at least one share (\$5), purchase telephone and build to
5 00	main line of system.
10 00	Subscribers purchase telephone and take \$15 stock.
12 00	Five year contracts \$10. Yearly, first year \$15 and thereafter \$12.
3 00	Combined rate, business and residence, \$25 a year.
13 00	Original subscribers shared equally cost of system. New subscribers pay in \$20
5 00	and purchase their telephones.
3 00	Subscribers purchase telephone.
10 00	Subscribers share cost on co-operative principle and pay " Bell " Co. \$3 for switching.
3 00	
12 50, 20 00	Subscribers share cost on co-operative principle and pay " Bell " Co. \$3 for switching.
10 00	Non-shareholders \$20. Shareholders pay \$10 for second telephone, and pay \$7.50
12 00	extra for individual line.
10 00	\$20 for two telephones. Entrance fee \$3.
2 50	Business or residence two-party lines \$10. Subscribers purchasing telephones
12 00	secure a reduction of \$2 a year.
15 00	Subscribers take \$45 stock.
	Stockholders of one share \$12.50, of two or more \$10 a year.

TELEPHONE

Summary of Returns from Telephone Companies and Individual

Name of System.	Date of Organization.	Cost of System to date.	Number of Telephones.	Miles of Poles.	Miles of Circuit.	Rates per	
						Business.	Residence.
		\$				\$	\$
Muskoka Independent Tel. System	1907	1,224	36	17	60	15 00	12 00
Mississippi Telephone Co., Limited	1912	2,960	65	26	26	.....	.....
Monteith-Dempsey Rural Tel. System...	1910	5,250	79	24	24	.....	.....
Mount Pleasant Tel. Co.	1907	7,000	251	.....	171	10 00	10 00
Murray-Brighton Tel. Co.	1911	11,243	175	66	79	12 00	12 00
New Glasgow Tel. Co., Limited.	1909	3,500	112	63	63	.....	.....
Niagara District Telephone Co., Limited	1906	24,000	475	83	244	13 50	13 50
Nipissing Private Line .....	.....	1,000	2	8	8	.....	.....
Nissouri Telephone Co., Limited.	1903	5,000	135	45	74	.....	.....
North Brant Telephone Association....	1908	1,500	38	14	16	.....	.....
Northcote Farmers' Tel. Association...	1909	1,000	40	21	21	.....	.....
North Huron Telephone Co., Limited...	1909	22,526	415	133	.....	.....	.....
Noisy River Telephone Co., Limited....	1908	6,500	288	105	220	.....	.....
Parker's, Dr., Telephone Line	1907	8,000	140	60	65	.....	.....
Pefferlaw Private Telephone System ..	1905	2,500	70	50	50	.....	.....
Penhurst Telephone Association	1908	258	9	1½	1½	.....	.....
People's Tel. Co-op. Forest, Limited....	1906	13,608	389	125	270	9 00	9 00
People's Mutual Telephone Co.	1907	2,700	84	12	23	.....	.....
Porte Telephone System.	1908	11,020	116	60	65	.....	.....
Princeton & Drumbo Tel. Co., Limited..	1907	29,200	510	123	292	.....	.....
Port Hope Telephone Co., Limited	1899	12,635	216	111	113	.....	.....
Paul & Eckert Tel. System .....	.....	19,883	230	38	172	20 00	.....
Quaker Telephone System	1908	12,000	178	53	120	.....	.....
Queen's Line Telephone Association....	.....	700	19	9	9	.....	.....
Quinlan's, Dr., Telephone System	1908	6,000	97	41	65	.....	.....
Ravenscliffe Telephone Co., Limited ...	1912	1,526	28	11½	11½	.....	.....
Reid's, N., Private Telephone Line	1903	1,000	2	10	10	.....	.....
Richard's Landing Telephone Club.	1909	640	109	.....	42	.....	.....
Rideau View Telephone Association....	1910	303	13	3	3	.....	.....
Rockwood & Oustic Telephone Co., ...	1907	4,000	63	22	40	.....	.....
Russell, Dr. A. L.	1906	3,000	100	50	50	10 00	.....
South Malahide Tel. Co. Limited	1905	3,807	574	200	346	15 00	15 00
Sparta Rural Telephone Co., Limited ..	1910	5,400	137	41	107	12 00	12 00
Saugeen Telephone Line. ....	.....	250	6	4	4	.....	.....
Scarboro' Independent Tel. Co., Limited	1905	30,000	400	.....	90	.....	.....
Scratch & Palmer Tel. Association	1906	200	7	1	1	.....	.....
South Brant Rural Telephone Co.	1910	1,040	21	8	8	.....	.....
Sprague Telephone Co.	1902	1,400	500	450	452	12 00	.....
St. Mary's-Medina Tel. Co., Limited ...	1907	10,029	147	30	75	.....	.....
South Bayham & Malahide Co-op. Tel. Association	1905	670	53	10	23	.....	.....
South Bruce Rural Tel. Co., Limited...	1910	14,222	310	115	179	.....	.....
South Leeds and Pittsburgh Tel. Co., Limited	1908	8,700	196	70	70	.....	.....

SYSTEMS—Continued.

Owners of Telephone Lines up to December 31st, 1912.

Annum.	Remarks.
Rural.	
\$	
10 00	Lumbermen and storekeepers on rural lines \$15. Entrance fee according to distance, but not over \$5.
10 00	
16 00	
5, 8 00	Subscribers purchase telephones. \$5 subscribers pay two cents a call for switching to other lines.
10 00	Subscribers purchasing telephone pay \$8 per annum.
6 00	Subscribers must purchase telephone and take at least one \$10 share.
12 00	Holders of \$75 stock secure reduction of \$2 a year.
.....	One subscriber at \$20 a year.
12 00	Holders of \$25 stock pay \$10 a year for party line, or \$15 for individual line.
5 00	Subscribers share cost on co-operative principle, and pay "Bell" Co. \$5 for switching
8 00	Subscribers pay \$6 entrance fee, and share cost on co-operative principle; also pay \$8 to "Bell" Co. for switching.
13, 14	Lucknow service \$13, Wingham \$14. Subscribers purchasing telephone secure reduction of \$1 a year.
15 00	
10 50	
6 00	Night service \$4 per annum extra. Subscribers build to nearest point on system
5 00	Subscribers share cost on co-operative principle and pay "Bell" Co. \$5 for switching
9 00	Subscribers purchase telephone, and take \$10 stock in town and \$20 in country. They must also pay cost of building line to main lead in country, and t "Central" in town.
7 50	Price of share \$35.
17 00	
12 00	Individual line \$17 per annum.
12 00	
15 00	
8 00	Subscribers not furnishing part of equipment, \$12.
.....	Subscribers share cost on co-operative principle.
15 00	
12 00	
.....	Toll line 25 cents a message.
1 25	Subscribers share cost on co-op. principle, and pay "Bell" Co. \$1.25 for switching.
16 00	Subscribers share cost on co-operative principle, and pay "Bell" Co. \$8 for switching and \$8 per mile for wire rental.
13 00	
5 00	Rural subscribers purchase telephones.
8 00	Subscribers purchase telephone and build their share of line. Holders of \$12 stock pay \$4 per annum for local or rural service.
12 00	Subscribers purchase telephones. Holders of \$36 stock pay \$6.75 per annum.
15 00	
12 00	Stockholders \$8 per annum.
6 00	Subscribers share cost of system on co-operative principle, and pay "Bell" Co. \$5 for switching.
15 00	
10 00	
12 00	
3 00	Subscribers take \$10 shares and purchase telephone.
10 00	Subscribers required to take \$100 stock.
13 00	Subscribers purchase \$50 stock, payable in five annual instalments. \$3 paid "Bell" Co. for switching.

TELEPHONE

Summary of Returns from Telephone Companies and Individual

Name of System.	Date of Organization.	Cost of System to date.	Number of Telephones.	Miles of Poles.	Miles of Circuit.	Rates per	
						Business.	Residence.
		\$				\$	\$
Tara-Keady Telephone Co.....	1912	903	20	12	12	.....	.....
Thedford, Arkona & E. Lambton Tel. Co., Limited	1908	11,728	205	49	118	.....	.....
Turner's Private Line.....	.....	5,862	139	115	115	.....	.....
Temiskaming Telephone Co., Limited..	1905	91,396	1012	.....	200	25, 40	15, 20
Thamesville Telephone Co., Limited ...	1908	19,954	355	83	181	18 00	15 00
Todd and Darling	1906	1,900	15	30	30	.....	.....
Walsingham Centre & Port Rowan Tel. Association	1908	635	25	12	12	.....	.....
West Flamboro' Telephone Co.	1908	900	17	3½	5	25 00	18 00
West Williams Rural Tel. Association..	1910	6,000	125	36	53	.....	.....
West Garafraxa Tel. Co-op. Association Limited	1905	2,170	49	29	29	6 00	5 00
Wroxeter Rural Telephone Co., Limited	1909	13,700	283	57	134	12 00	12 00
Wheatley Telephone Co., Limited	1908	17,380	320	75	179	16 00	16 00
Wightman, Robert	1909	12,156	182	60	106	.....	.....
Willowdale Rural Tel. Co., Limited....	1911	2,634	35	8	24	.....	.....
Yarmouth Rural Tel. Co., Limited	1908	2,510	50	20	34	.....	.....
Zorra Telephone Association	1906	5,500	108	50	54	.....	.....

SYSTEMS—Concluded.

Owners of Telephone Lines, up to December 31st, 1912.

Annum.		Remarks.
	Rural.	
\$		
.....		Subscribers share cost on co-operative principle.
12, 14		Selective ringing: One ring \$14, four-party ring \$12.
10 00		Subscribers building line and purchasing telephone pay \$3 a year.
15 00		Mine telephones according to distance, minimum rate \$50.
15 00		Business and residence telephones combined \$30.
10 00		
2 00		Subscribers pay \$10 for poles and purchase telephone and wire.
18 00		Rates include \$5 for Dundas "Bell" service.
10 00		Shareholders having equal share in system pay \$4 per annum.
5 00		Subscribers purchase telephone, and on new extensions take \$10 stock.
12 00		Holders of \$100 stock pay \$10 a year.
10, 12, 14		Selective ringing: One ring \$14, two rings \$12, four rings \$10.
10 00		
25 00		Rate includes \$8 for Ottawa "Bell" service.
12 50		
15 00		

PUBLIC UTILITIES.

GAS WORKS, MUNICIPALITY OF BELLEVILLE.

Date of vote to establish plant, 1904.
Date plant acquired.
Total assessed value of real estate municipally, \$4,916,817.
Debenture debt in respect of gas plant, \$90,000.
Number of street gas lamps, two.
Number of feet of gas sold to general consumers, 18,293,300 feet.
Number of service pipes in use, 1,284.
Cost of street lamp per year, not given.
Gross price per 1,000 cubic feet lighting, \$1.50.
Gross price per 1,000 cubic feet fuel, \$1.50.
Schedule of discounts and minimum charges (if any), 25%.
Gross earnings from operation
From coke and tar
From meters
From gas stoves and engines..
From gas lamps
Miscellaneous

Gross earnings

Income.

Gross earnings	\$26,960 63
Operating expenses .	16,640 52
Net earnings	\$10,320 11
Deductions:	
Interest on funded debt	\$3,162 32
Debenture paid	3,171 50
	6,333 82
Total net income	\$3,986 29
Surplus	\$3,986 29

Operating Expenses.

Manufacture:	
Salaries, manufacture	
Labor, manufacture	\$2,570 03
Labor, purification	82 25
Gas coal	7,850 31
Enricher (coal gas)	
Bench fuel	
Generator fuel	566 36
Oil (water gas)	752 39
Boiler fuel	
Water	95 00
Purification materials	
Residual expense	
Works expense	261 81
Materials (gasolene gas)...	

Materials (acetylene gas) ..	
Repairs, works (coal gas) ..	501 09
Repairs, works (water gas)..	136 80
Repairs, works (general)...	
Gas purchased	
Distribution:	
Distribution, salaries	\$772 92
Complaints and gratuitous work	
Setting and removing meters and regulators	133 01
Operating and repairing street lamps	
Gas stove and appliances....	59 19
Jobbing	37 00
Repairs, mains	103 50
Repairs, services	125 69
Repairs, meters	139 54
a*Operating wells	47 75
a*Operating lines	247 91
a*Repairs, wells	121 75
a*Repairs, lines	108 00
a*Repairs, building and apparatus	

General Expense:

Salaries of officers	
Office salaries	\$1,545 00
Office expense	129 11
Registering and collecting ..	49 96
b†Legal expense	
General expense	37 00
Advertising	
Canvassing	37 00
Uncollectible accounts	
Taxes	
Insurance	90 00
Telephone	40 15
Leaseholds, rentals, etc.	
Damages, including legal expense connected therewith,	
Depreciation (in addition to actual expenditure for repairs, renewals and replacements)	

Total operating expenses..... \$16,640 52

a*In case natural gas is furnished.

b†Not to include legal expenses connected with damages.

Construction and equipment ..	
Value of land occupied by plant	\$1,400 00
Value of buildings.....	12,087 03
Value of machinery and apparatus	17,936 46
Value of street mains.....	14,441 39
Value of services	4,472 34
Value of meters	10,073 96

GAS WORKS, MUNICIPALITY OF BELLEVILLE.—*Continued.*

Value of street lamps and fixtures	100 00
Value of tools and appliances..	355 30
Value holders	23,471 05
Value of other assets	1,292 25

Overdraft	
Other indebtedness	
Total debt	
Amount invested in sinking fund	

Total assets \$85,629 78

Debenture debt \$90,000 00

GAS WORKS, MUNICIPALITY OF BERLIN.

Date of vote to establish plant, 20th Feb., 1903.
 Date plant installed or acquired, 20th Feb., 1903.
 Total assessed value of real estate municipality, \$7,159,535.
 Debenture debt in respect of gas plant, \$142,500.

Number of street gas lamps. None.
 Number of feet of gas sold to general consumers, 27,482,700 feet.

Number of service pipes in use, 1,619.
 Cost of street lamp per year. Not given.
 Gross price per 1,000 cubic feet lighting, \$1.25 per 1,000 feet.

Gross price per 1,000 cubic feet fuel, \$1.25 per 1,000 feet.

Schedule of discounts and minimum charges (if any). None.

Gross earnings from operation	
For lighting	\$32,381 58
For cooking and heating....	
For power	
Less discounts	
From meters, etc.	234 17
From gas stoves and engines..	
From coke	2,076 92
Miscellaneous	

Gross earnings \$34,692 67

Income.

Gross earnings \$34,692 67
 Operating expenses 26,825 27

Net earnings \$7,867 40

Deductions:
 Interest on funded debt 5,408 90
 Interest on floating debt....
 Other deductions

Total net income \$2,458 50

Sinking fund

Reconstruction reserve fund ..

Surplus or deficit \$2,458 50

Operating Expenses.

Manufacture:	
Salaries, manufacture	\$670 49
Labor, manufacture	3,702 06
Labor, purification	95 84
Gas coal	4,305 68

Enricher (coal gas)	
Bench fuel, coke	2,928 06
Generator fuel	
Oil (water gas)	3,116 25
Boiler fuel	1,831 51
Water	
Purification materials	319 80
Residual expense	58 73
Works expense	652 67
Materials (gasolene gas)	
Materials (acetylene gas) ..	
Repairs, works (coal gas) ..	957 07
Repairs, works (water gas),	
drain outlet	86 64
Repairs, works (general) ..	279 22
Gas purchased	

Distribution:	
Distribution, salaries	\$319 37
Complaints and gratuitous	
work	75 52
Setting and removing meters	
and regulators	285 67
Operating and repairing	
street lamps	
Gas stove and appliances....	
Jobbing	
Repairs, mains, gas ex.	217 55
Repairs, services	205 24
Repairs, meters, and inspection	667 64

a*Operating wells

a*Operating lines

a*Repairs, wells

a*Repairs, lines

a*Repairs, building and apparatus

General Expense:	
Salaries of officers	\$656 24
Office salaries	1,579 31
Office expense	142 51
Registering and collecting..	
b†Legal expense	6 50
General expense	
Advertising	151 44
Canvassing	20 50
Uncollectible accounts	68 19
Taxes	48 58
Insurance	21 32
Franchises	185 04
Leaseholds, rentals, etc.	168 99
Damages, including legal expenses connected therewith	

GAS WORKS, MUNICIPALITY OF BERLIN.—*Continued.*

Depreciation (in addition to actual expenditure for repairs, renewals and replacements) 3,001 64

Total operating expenses..... \$26,825 27

a*In case natural gas is furnished.

b†Not to include legal expenses connected with damages.

Construction and equipment..

Value of land occupied by plant

Value of buildings

Value of machinery and apparatus

Value of street mains

Value of services

Value of meters

Value of street lamps and fixtures

Value of tools and appliances..

Value of staple equipment....

Value of other assets

Total assets \$156,872 70

Debenture debt \$142,500 00

Over draft

Other indebtedness

Total debt \$142,500 00

Amount invested in sinking fund

GAS WORKS, MUNICIPALITY OF BROCKVILLE.

Date of vote to establish plant, 31st July, 1900.

Date plant installed or acquired.

Total assessed value of real estate municipality, \$4,168,945.

Debenture debt in respect of gas plant, \$82,427.34.

Number of street gas lamps, 32.

Number of feet of gas sold to general consumers, 28,914,000.

Number of service pipes in use, 1,456.

Cost of street lamp per year, \$22.00.

Gross price per 1,000 cubic feet lighting, \$1.25.

Gross price per 1,000 cubic feet fuel, \$1.25.

Schedule of discounts and minimum charges (if any), 10% for prompt payment.

Gross earnings from operation. \$32,031 85

For lighting public buildings.. 3,927 30

For street lighting 704 00

For power

Less discounts \$36,663 15

From meters

From gas stoves and engines..

From gas lamps

Miscellaneous 1,252 64

Gross earnings \$37,915 79

Income.

Gross earnings \$37,915 79

Operating expenses. 24,502 86

13,412 93

Net earnings \$13,412 93

Deductions:

Interest on funded debt.... 3,000 00

Interest on floating debt....

Other deductions

Total net income..... \$10,412 93

Sinking fund

Reconstruction reserve fund ..

Surplus \$10,412 93

Operating Expenses.

Manufacture:

Salaries, manufacture \$1,975 00

Labor, manufacture 97 06

Labor, purification

Gas coal

Enricher (coal gas)

Bench fuel

Generator fuel 4,538 52

Oil (water gas) 5,831 46

Boiler fuel 1,202 69

Water

Purification materials

Residual expense

Works expense 740 00

Materials (gasolene gas) ...

Materials (acetylene gas) ..

Repairs, works (coal gas)..

Repairs, works (water gas).. 200 20

Repairs, works (general).. 258 04

Gas purchased

Distribution:

Distribution, salaries \$496 24

Complaints and gratuitous work

Setting and removing meters and regulators 329 00

Operating and repairing street lamps 250 00

Gas stoves and appliances...

Jobbing

Repairs, mains

Repairs, services 200 00

Repairs, meters 115 75

a*Operating wells

a*Operating lines

a*Repairs, wells

a*Repairs, lines

a*Repairs, building and apparatus

GAS WORKS, MUNICIPALITY OF BROCKVILLE.—Continued.

General Expense:	
Salaries of officers.....	\$1,100 00
Office salaries	
Office expense	
Registering and collecting..	178 93
b†Legal expense	
General expense	333 58
Advertising	
Canvassing	
Uncollectible accounts	
Taxes	
Insurance	610 57
Franchises	
Leaseholds, rentals, etc....	
Damages, including legal ex- pense connected therewith	
Depreciation (in addition to actual expenditure for re- pairs, renewals and replace- ments)	6,045 82
Total operating expenses.....	\$24,502 86

a*In case natural gas is furnished.

b†Not to include legal expenses connected with damages.

Construction and equipment..	
Value of land occupied by plant	\$3,750 00
Value of buildings.....	8,195 00
Value of machinery and ap- paratus	41,695 00
Value of street mains	31,004 46
Value of services	4,965 16
Value of meters	9,118 23
Value of street lamps and fixtures	810 00
Value of tools and appliances..	515 29
Value of staple equipment....	530 15
Value of other assets.....	2,450 00

Total assets \$103,033 29

Debenture debt 82,427 34

Overdraft

Other indebtedness

Total debt \$82,427 34

Amount invested in sinking
fund

GAS WORKS, MUNICIPALITY OF DESERONTO.

Date of vote to establish plant, 29th March, 1907.	
Date plant installed or acquired.	
Total assessed value of real estate muni- cipality, \$1,010,990.	
Debenture debt in respect of gas plant. None.	
Number of street gas lamps, 54.	
Number of feet of gas sold to general consumers, 2,878,900 feet.	
Number of service pipes in use, 160.	
Cost of street lamp per year. Not given.	
Gross price per 1,000 cubic feet lighting, \$1.95.	
Gross price per 1,000 cubic feet fuel, \$1.20.	
Schedule of discounts and minimum charges (if any). Rebate of 2c. per 1,000 feet if paid promptly.	
Gross earnings from operation.	
For lighting	} 3,897 48
For cooking and heating.....	
For power	
From meters	285 25
From gas stoves and engines..	
From gas lamps, public build- ings and lighting	1,707 58
Gross earnings	\$5,890 31

Income.

Gross earnings	\$5,890 31
Operating expenses.	6,825 52

Net earnings \$935 21

Deductions:

Interest on funded debt, 4%, \$20,000	800 00
--	--------

Interest on floating debt

Other deductions

Deficit \$1,735 21

Operating Expenses.

Manufacture:	
Salaries, manufacture	
Labor, manufacture	\$1,394 52
Labor, purification	
Gas coal	2,179 73
Enricher (coal gas)	
Bench fuel	
Generator fuel	1,038 60
Oil (water gas)	
Boiler fuel	
Water	
Purification materials	75 90
Residual expense	
Works expense	157 25
Materials (gasolene gas) ...	
Materials (acetylene gas) ..	
Repairs, works (coal gas)..	1,877 19
Repairs, works (water gas)..	
Repairs, works (general)...	
Gas purchased	

Distribution:

Distribution, salaries	
Complaints and gratuitous work	
Setting and removing meters and regulators	
Operating and repairing street lamps	
Gas stoves and appliances...	
Jobbing	
Repairs, mains	

GAS WORKS, MUNICIPALITY OF DESERONTO.—Continued.

Repairs, services	
Repairs, meters	37 33
a*Operating wells	
a*Operating lines	
a*Repairs, wells	
a*Repairs, lines	
a*Repairs, building and apparatus	
General Expense:	
Salaries of officers	
Office salaries	
Office expense	
Registering and collecting..	
b†Legal expense	
General expense	
Advertising	
Canvassing	
Uncollectible accounts	
Taxes	
Insurance	65 00
Franchises	
Leaseholds, rentals, etc.	
Damages, including legal expense connected therewith	
Depreciation (in addition to actual expenditure for repairs, renewals and replacements)	

Total operating expenses..... \$6,825 52

GAS WORKS, MUNICIPALITY OF KINGSTON.

Date of vote to establish plant, 1904.	
Date plant installed or acquired.	
Total assessed value of real estate municipality, \$8,436,972.	
Debenture debt in respect of gas plant, including debentures issued for electric light plant, \$279,680.60.	
Number of street gas lamps. None.	
Number of feet of gas sold to general consumers, 45,577,200 feet.	
Number of service pipes in use, 1,871.	
Cost of street lamp per year. None.	
Gross price per 1,000 cubic feet lighting, \$1.00.	
Gross price per 1,000 cubic feet fuel, \$1.00.	
Schedule of discounts and minimum charges (if any). None.	
Gross earnings from operation. \$44,642 39	
For lighting	
For cooking and heating.....	
For power	
Less discounts	
From meters	5,025 01
From gas stoves and engines..	
From gas lamps	
Miscellaneous	

Gross earnings \$49,667 40

Income.

Gross earnings	\$49,667 40
Operating expenses.	35,042 14
Net earnings	\$14,625 26

a*In case natural gas is furnished.	
b†Not to include legal expenses connected with damages.	
Construction and equipment...	
Value of land occupied by plant	
Value of buildings	
Value of machinery and apparatus	
Value of street mains	
Value of services	
Value of meters	
Value of street lamps and fixtures	
Value of tools and appliances.	
Value of staple equipment....	
Value of other assets	

Total assets \$23,000 00

Debenture debt	\$20,000 00
Overdraft	
Other indebtedness	

Total debt \$20,000 00

Amount invested in sinking fund

Deductions:	
Interest on funded debt and debenture paid	8,892 13
Surplus	\$5,733 13

Operating Expenses.

Manufacture:	
Salaries, manufacture	\$1,962 50
Labor, manufacture	4,465 38
Labor, purification	
Gas coal	7,205 47
Enricher (coal gas)	1,746 49
Bench fuel	
Generator fuel	
Oil (water gas)	7,650 58
Boiler fuel	
Water	26 07
Purification materials	300 81
Residual expense	
Works expense	103 73
Materials (gasolene gas) ..	
Materials (acetylene gas) ..	
Repairs, works (coal gas) ..	10 62
Repairs, works (water gas) ..	
Repairs, works (general) ..	
Gas purchased	

Distribution:

Distribution, salaries	
Complaints and gratuitous work	
Setting and removing meters	

GAS WORKS, MUNICIPALITY OF KINGSTON.—Continued.

and regulators	
Operating and repairing street lamps	
Gas stoves and appliances..	
Jobbing, inspection	171 00
Repairs, mains	4,341 51
Repairs, services	728 55
Repairs, meters	1,536 66
a*Operating wells	171 10
a*Operating lines	
a*Repairs, wells	794 13
a*Repairs, lines, contingencies	453 53
a*Repairs, building and apparatus	
General Expense:	
Salaries of officers	
Office salaries	
Office expense	
Registering and collecting..	
b†Legal expense	
General expense	\$180 13
Advertising	
Canvassing	583 06
Uncollectible accounts	
Taxes	2,289 03
Insurance	321 79
Franchises	
Leaseholds, rentals, etc.....	
Damages, including legal expense connected therewith	
Depreciation (in addition to actual expenditure for re-	

pairs, renewals and replacements)	*
Total operating expenses....	\$35,042 14
a*In case natural gas is furnished.	
b†Not to include legal expenses connected with damages.	
Construction and equipment..	
Value, holders	\$32,787 15
Value, generators	12,941 66
Value of machinery and apparatus	
Value of street mains	84,033 16
Value of services	15,357 42
Value of meters	18,928 06
Value of street lamps and fixtures	
Value of tools and appliances.	10,507 54
Value of staple equipment....	
Value of other assets	13,606 86
Total assets	\$188,161 85
Debenture debt, including issue for electric light...	\$279,680 60
Overdraft	
Other indebtedness	
Total debt	
Amount invested in sinking fund	

GAS WORKS, MUNICIPALITY OF OWEN SOUND.

Date of vote to establish plant, 1903.	
Date plant installed or acquired.	
Total assessed value of real estate municipality, \$5,832,431.	
Debenture debt in respect of gas plant, \$109,000.	
Number of street gas lamps, gas arcs, 52.	
Number of feet of gas sold to general consumers, 15,324,460.	
Number of service pipes in use, 1,075.	
Cost of street lamp per year. Not given.	
Gross price per 1,000 cubic feet lighting: \$1.50 to 1st Nov.; \$1.25 to 1st Jan.	
Gross price per 1,000 cubic feet fuel. Same.	
Schedule of discounts and minimum charges (if any). None.	
Gross earnings from operation	\$19,880 53
For lighting	
For cooking and heating.....	
For power	
Less discounts	
From meters, coke sold to others	4,393 41
From gas stoves and engines..	
From gas lamps, tar coal gas..	549 61
Miscellaneous	
Gross earnings	\$24,823 55

Income.	
Gross earnings	\$24,823 55
Operating expenses.	14,821 30
Net earnings	\$10,002 25
Other sources income	1,056 20
	\$11,058 45
Deductions:	
Interest on funded debt	\$4,522 50
Interest on floating debt, dis. debentures	117 24
	4,639 74
Other deductions	
Total net income.....	\$6,418 71
Sinking fund	4,583 18
Reconstruction reserve fund..	
Surplus or deficit	\$1,835 53

Operating Expenses.	
Manufacture:	
Salaries, manufacture	\$1,288 87
Labor, manufacture	3,676 93

GAS WORKS, MUNICIPALITY OF OWEN SOUND.—*Continued.*

Labor, purification		Registering and col- lecting	
Gas coal	8,112 22	b†Legal expense	
Enricher (coal gas)		General expense.....	
Bench fuel		Advertising	
Generator fuel		Canvassing	
Oil (water gas)	1,028 38	Uncollectible ac- counts	
Boiler fuel		Taxes	
Water		Insurance	171 10
Purification materials			<u>\$714 88</u>
Residual expense		Total operating expenses.....	\$14,821 30
Works expense			
Materials (gasolene gas)....		a*In case natural gas is furnished.	
Materials (acetylene gas)..		b†Not to include legal expenses connected with damages.	
Repairs, works (coal gas)..			
Repairs, works (water gas)..			
Repairs, Works (general)..			
Gas purchased			
Distribution:		Construction and equipment..	
Distribution, salaries		Value of land occupied by plant	
Complaints and gratuitous work		Value of buildings	
Setting and removing meters and regulators		Value of machinery and ap- paratus	
Operating and repairing street lamps		Value of street mains	
Gas stoves and appliances..		Value of services	
Jobbing		Value of meters.....	
Repairs, mains		Value of street lamps and fixtures	
Repairs, services		Value of tools and appliances..	
Repairs, meters		Value of staple equipment....	
a*Operating wells		Value of other assets	
a*Operating lines			
a*Repairs, wells		Total assets	\$100,453 62
a*Repairs, lines		Debenture debt	\$109,000
a*Repairs, building and ap- paratus		Overdraft	
General Expense:		Other indebtedness	
Salaries of officers..	\$408 33		
Office salaries		Total debt	\$109,000 00
Office expense	135 45	Amount invested in sinking fund	29,305 86
		Net debt	<u>\$79,694 14</u>

PUBLIC UTILITIES, GAS PLANTS.

Tabulated Statements Compiled from Returns of Municipalities for year ending 31st December, 1911.

Name of Municipality.	Total Investment.		Debentures and Other Debts.		Sinking Fund.		Net Debt.		Total Income.		Total Expenditure.		Surplus		Deficit.	
	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.
Belleville.....	85,629	78	90,000	00	.....	.....	90,000	00	26,960	63	22,974	34	3,986	29	.....	.....
Berlin.....	156,872	70	1,425,000	00	.....	.....	142,500	00	34,692	67	32,234	17	2,458	50	.....	.....
Brockville.....	103,033	29	82,427	34	.....	.....	82,427	34	37,915	79	27,502	86	10,412	93	.....	.....
Deseronto.....	23,000	00	20,000	00	.....	.....	20,000	00	5,890	31	7,625	52	.....	.....	1,735	21
Guelpi.....(no report)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kingston.....	188,161	85	279,680	60	.....	.....	279,680	60	49,667	40	43,934	27	5,733	13	.....	.....
Owen Sound.....	100,453	62	109,000	00	29,305	86	79,694	14	1,056	20	} 24,044	22	.....	.....	.....	.....
St. Thomas.....	.....	.....	.....	.....	.....	.....	.....	.....	24,823	55		.....	.....	.....	.....	.....
Waterloo.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF AMHERSTBURG.

Plant acquired or installed, 1891.
 Total assessed valuation of real estate in municipality, \$724,699.
 Amount at par of bonds issued during year for lighting and power purposes. None.
 Amount of outstanding debentures, 31st December, 1911. None.
 Motive power.
 Number com. arc lamps supplied. None.
 Nominal candle power. None.
 Number municipal arc lamps, 30.
 Nominal candle power, 500 C.P.
 Number incandescent lamps supplied. None.
 Nominal candle power.
 Amount of power supplied to customers K.W. None.
 Price charged for com. arc lamps. None.
 Price charged for com. incandescent lamps. None.
 Price charged for electric power per K.W.
 Cost per public arc lamp, \$45.
 Cost per public incandescent lamp.
 Gross earnings from sale of power and lighting
 Less operating expenses

Deductions from net income.....
 Interest on debenture debt ..
 Sinking fund
 Reconstruction reserve fund..
 Other deductions

Surplus or deficit

Assets:

Plant, real estate, building equipment, etc.

Liabilities:

Debentures current

Operating Expenses:

Salaries, production \$275 00
 Wages
 Fuel 475 00
 Oil, waste and sundries 20 00
 Repairs 285 00
 General expenses .. 175 00

Depreciation

Total operating expenses \$1,230 00

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF AYLMEY.

Plant acquired or installed, 1897.
 Total assessed valuation of real estate in municipality, \$921,135.
 Amount at par of bonds issued during year for lighting and power purposes. None.
 Amount of outstanding debentures, 31st December, 1911, \$1,894,210.
 Motive power. Steam.
 Number com. arc lamps supplied, 9.
 Nominal candle power, 1,600.
 Number municipal arc lamps, 12.
 Nominal candle power, 1,600.
 Number incandescent lamps supplied:
 Municipal, 250.
 Commercial, 3,000.
 Nominal candle power, 16.
 Amount of power supplied to customers K.W. None.
 Price charged for com. arc lamps, \$10.20 per K.W.H.
 Price charged for com. incandescent lamps, \$10.20 per K.W.H.
 Cost per public arc lamp, \$10.50, estimated.
 Cost per public incandescent lamp, \$11.88.

Operating Expenses.

Production:

Salaries, production \$1,910 83
 Labour, production.
 Fuel 2,673 53

Oil, waste and sundries
 Water
 Water rights
 Repairs, buildings and structures ..
 Repairs, motive power
 Repairs, electric apparatus
 Station expense ...
 Power purchased ..
 Rebates 45 29
 \$5,221 21

Distribution:

Salaries, distribution
 Sub-station labour and expense
 Distribution expense
 Incandescent lamp renewals
 Wiring and jobbing
 Operating and repairing street lamps
 Repairs, sub-station buildings and apparatus
 Repairs, poles and lines

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF AYLMER.—Continued.

Repairs, subways and cables		Gross earnings from sale of power and lighting	\$10,816 51
Repairs, meters		Less operating expenses	5,221 21
Repairs, transformers			
Repairs, commercial arc lamps		Net earnings	\$5,595 30
General Expense:		Deductions from net income..	.....
Office salaries		Interest on debenture debt, 18,942.10, 4%	\$757 68
Office expense		Sinking fund .....	.....
Registering and collecting		Reconstruction reserve fund..	.....
Legal expense		Other deductions .....	.....
General expense ..			
Advertising		Surplus	\$4,837 62
Leasholds, rentals, etc.			
Damages		Assets:	
Depreciation		Plant, real estate, building equipment, etc.	\$42,080 33
Steam Heating Department:		Liabilities:	
		Debentures current	18,942 10
Total operating expenses. \$5,221 21			

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF BARRIE.

Plant acquired or installed, 1888-1889.		Assets:	
Total assessed valuation of real estate in municipality, \$2,998,620.		Plant, real estate, building equipment, etc.	\$85,675 30
Amount at par of bonds issued during year for lighting and power purposes. None.		Liabilities:	
Amount of outstanding debentures, 31st December, 1911, \$55,397.48.		Debentures current	55,397 48
Motive power. Steam.		Operating Expenses.	
Number com. arc lamps supplied, 5.		Production:	
Nominal candle power, 450.		Salaries, production	} \$2,767 15
Number municipal arc lamps, 53.		Labour, production	
Nominal candle power, 1,200.		Fuel	8,465 31
Number incandescent lamps supplied:		Oil, waste and sundries ..	.....
Municipal, 60, 48 C.P.		Water	357 04
Commercial, 5,000, 16 C.P.		Water rights .....	.....
Nominal candle power.		Repairs, buildings and structures ..	.....
Amount of power supplied to customers K.W. Not given.		Repairs, motive power .....	.....
Price charged for com. arc lamps, 9c. K.W.H.		Repairs, electric apparatus.	261 23
Price charged for com. incandescent lamps, 9c. K.W.H.		Station expense	207 00
Price charged for electric power per K.W., 2 to 1¼ K.W.H.		Power purchased	87 71
Cost per public arc lamp, \$45.		Distribution:	
Cost per public incandescent lamp, \$20.		Salaries, distribution	\$194 61
Gross earnings from sale of power and lighting	\$22,649 80	Sub-station labour and expense ..	.....
Less operating expenses	14,233 18	Distribution expense .....	.....
	\$8,416 62	Incandescent lamp renewals ..	40 00
		Wiring and jobbing .....	.....
Deductions from net income..	.....	Operating and repairing street lamps	309 88
Interest on debenture debt	\$2,522 50	Repairs, sub-station buildings and apparatus .....	.....
Sinking fund, deb. paid	3,074 43	Repairs, poles and lines .....	.....
Reconstruction reserve fund		Repairs, subways and cables ..	165 69
Other deductions		Repairs, meters	20 00
Surplus	\$2,819 69	Repairs, transformers .....	.....
		Repairs, commercial arc lamps ..	270 48
		General Expense:	
		Office salaries	480 00
		Office expense	130 00

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF BARRIE.—Continued.

Registering and collecting.. .. .	Depreciation	8 60
Legal expense 25 00		
General expense 30 90	Steam Heating Department:	
Advertising 210 00		
Leaseholds, rentals, etc.		
Damages 202 58		<u>\$14,233 18</u>

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF BLENHEIM.

Plant acquired or installed, 1900.	Deductions from net income.. .. .	
Total assessed valuation of real estate in municipality, \$449,085.	Interest on debenture debt	
Amount at par of bonds issued during year for lighting and power purposes. None.	Sinking fund	
Amount of outstanding debentures, 31st December, 1911. None.	Reconstruction reserve fund.. .. .	
Motive power. Gas.	Other deductions	
Number com. arc lamps supplied. None.	Surplus or deficit	\$575 70
Nominal candle power. None.	Assets:	
Number municipal arc lamps, 25.	Plant, real estate, building equipment, etc.	\$10,000 00
Nominal candle power, 2,000 C.P.		
Number incandescent lamps supplied:	Liabilities:	
Municipal, 100.	Debentures current	
Commercial, 1,700.		
Nominal candle power, 16.	Operating expenses:	
Amount of power supplied to customers K.W. None.	Salaries, production \$1,000 00	
Price charged for com. arc lamps. None.	Wages	
Price charged for com. incandescent lamps, 10c. per K.W.	Fuel 850 00	
Price charged for electric power per K.W. None.	Oil, waste and sundries 100 00	
Cost per public arc lamp, \$30.	Repairs	} 1,281 51
Cost per public incandescent lamp, \$5.	General expenses	
Gross earnings from sale of power and lighting \$3,807 21	Depreciation	
Less operating expenses 3,231 51	Total operating expenses	<u>\$3,231 51</u>
		\$575 70

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF BOBCAYGEON.

Plant acquired or installed, 1906.	Gross earnings from sale of power and lighting	\$2,530 25
Total assessed valuation of real estate in municipality, \$264,135.	Commercial incandescent lights	44 52
Amount at par of bonds issued during year for lighting and power purposes. None.	Commercial incandescent lights, public buildings	835 00
Amount of outstanding debentures, 31st December, 1911, \$22,758.	Street arc lights	105 00
Motive power.	Street incandescent lights... ..	3,514 77
Number com. arc lamps supplied. None.	Less operating expenses	<u>1,534 80</u>
Nominal candle power. None.		\$1,979 97
Number municipal arc lamps, 22.		
Nominal candle power, 1,200.	Deductions from net income.. .. .	
Number incandescent lamps supplied:	Interest on debenture debt	\$1,534 78
Municipal, 21, 50 C.P.	Sinking fund	
Commercial. Not given.	Reconstruction reserve fund.. .. .	
Nominal candle power, 16.	Other deductions	
Amount of power supplied to customers K.W. None.	Surplus	<u>\$445 19</u>
Price charged for com. arc lamps. None.	Assets:	
Price charged for com. incandescent lamps, \$2 flat rate.	Plant, real estate, building equipment, etc. (1910)	\$26,500 00
Price charged for electric power per K.W. None.		
Cost per public arc lamp. Not given.	Liabilities:	
Cost per public incandescent lamp. Not given.	Debentures current	\$22,758 00

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF BOBCAYGEON.—*Continued.**Operating Expenses.*

Production:

Salaries, production	\$600 00	
Labour, production	.....	
Fuel ..	37 38	
Oil, waste and sundries ..	.....	
Water ..	3 00	
Water rights ..	.....	
Repairs, buildings and structures ..	73 67	
Repairs, motive power ..	21 00	
Repairs, electric apparatus ..	.....	
Station expense ..	214 38	
Power purchased ..	31 90	
		\$981 33

Distribution:

Salaries, distribution	\$100 15	
Sub-station labour and expense ..	.....	
Distribution expense ..	.....	
Incandescent lamp		

renewals ..	.....	
Wiring and jobbing ..	.....	
Operating and repairing street lamps ..	163 09	
Repairs, sub-station buildings and apparatus ..	.....	
Repairs, poles and lines ..	47 47	
		\$310 71

General Expense:

Office salaries ..	60 00	
Office expense ..	9 13	
Registering and collecting ..	.....	
Legal expense ..	7 08	
General expense ..	.....	
Advertising ..	166 55	
		\$242 76

Steam Heating Department:

Total operating expenses—		
Electric ..		\$1,534 80

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF BOTHWELL.

Plant acquired or installed, 1899.

Total assessed valuation of real estate in municipality, \$206,000.

Amount at par of bonds issued during year for lighting and power purposes. None.

Amount of outstanding debentures, 31st December, 1911.

Motive power. Steam.

Number com. arc lamps supplied. None.

Nominal candle power. None.

Number municipal arc lamps, 15.

Nominal candle power, 2,000.

Number incandescent lamps supplied:

Municipal, 500.

Nominal candle power, 16 C.P.

Amount of power supplied to customers K.W. None.

Price charged for com. arc lamps. None.

Price charged for com. incandescent lamps. Not given.

Price charged for electric power per K.W. None sold.

Cost per public arc lamp. Not given.

Cost per public incandescent lamp. Not given.

Gross earnings from sale of power and lighting .. \$2,528 40

Less operating expenses .. 2,504 01

\$24 39

Deductions from net income ..

Interest on debenture debt ..

Sinking fund ..

Reconstruction reserve fund..

Other deductions ..

Surplus or deficit ..

Assets:

Plant, real estate, building equipment, etc.	\$6,200 00
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Liabilities:

Debentures current ..	\$2,091 15
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Operating Expenses.

Production:

Salaries, production	\$766 00	
Labour, production ..		
Fuel ..	1,364 07	
Oil, waste and sundries ..	.....	
Water ..	20 30	
Water rights ..	.....	
Repairs, buildings and structures ..	278 24	
Repairs, motive power ..	75 40	

Distribution:

Salaries, distribution ..	.....	
Sub-station labour and expense ..	.....	
Distribution expense ..	.....	
Incandescent lamp renewals ..	.....	
Wiring and jobbing ..	.....	
Operating and repairing street lamps ..	.....	
Repairs, sub-station buildings and apparatus ..	.....	
Repairs, poles and lines ..	.....	

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF BRACEBRIDGE.—*Continued.*

Deductions from net income ..	.....
Interest on debenture debt ..	\$4,060 86
Sinking fund .....	.....
Reconstruction reserve fund ..	.....
Other deductions .....	.....
Surplus	\$9,380 23

Assets:	
Plant, real estate, building equipment, etc.	\$119,511 01
Liabilities	
Debentures current	\$87,993 40

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF BROCKVILLE.

Plant acquired or installed, 1912.	
Total assessed valuation of real estate in municipality, \$4,168,945.	
Amount at par of bonds issued during year for lighting and power purposes, \$50,000 for gas, \$47,760 for E.L.	
Amount of outstanding debentures, 31st December, 1911, \$157,466.73.	
Motive power. Steam.	
Number com. arc lamps supplied, 10.	
Nominal candle power, 1,200.	
Number municipal arc lamps, 75.	
Nominal candle power, 1,200.	
Number incandescent lamps supplied:	
Municipal, 95, 40 C.P.	
Commercial, 10,000, 2 to 500 Watts.	
Nominal candle power,	
Amount of power supplied to customers K.W. Not given.	
Price charged for com. arc lamps, 10c. K.W.H.	
Price charged for com. incandescent lamps, 10c. K.W.H.	
Price charged for electric power per K.W., 2c. to 10c. K.W.H.	
Cost per public arc lamp per annum, \$62.25.	
Cost per public incandescent lamp, \$22.	
Gross earnings from sale of power and lighting	\$24,803 83
Less operating expenses	20,542 80
	\$4,261 03

Deductions from net income ..	.....
Interest on debenture debt ..	\$3,923 59
Sinking fund .....	.....
Reconstruction reserve fund..	.....
Other deductions .....	.....
Surplus	\$337 44

Assets:	
Plant, real estate, building equipment, etc.	\$76,532 31

Liabilities:	
Debentures cur- rent	*\$157,466 73
Less gas debentures	82,427 34
	\$75,039 39

*Gas and elec. light.

Operating Expenses.

Production:	
Salaries, production	\$2,977 50
Labour, production. ....	.....
Fuel	7,637 60
Oil, waste and sun- dries .....	.....
Water	573 30
Water rights .....	.....
Repairs, buildings and structures ..	.....
Repairs, motive power .....	.....
Repairs, electric ap- paratus	24 16
Station expense	413 17
Power purchased ..	.....
	\$11,625 73

Distribution:	
Salaries, distribu- tion	\$1,194 28
Sub-station labour and expense ....	.....
Distribution ex- pense	631 20
Incandescent lamp newals .....	.....
Wiring and jobbing .....	.....
Operating and re- pairing street lamps .....	.....
Repairs, sub-station buildings and ap- paratus	735 10
Repairs, poles and lines .....	.....
Repairs, subways and cables	268 13
Repairs, meters ...	35 77
Repairs, trans- formers .....	.....
Repairs, commer- cial arc lamps...	.....
	\$2,864 48

General expense:	
Office salaries	\$800 00
Office expense	178 94
Registering and col- lecting .....	.....
Legal expense .....	.....
General expense ..	1,043 10
Advertising .....	.....
Leaseholds, rentals, etc. ....	.....

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF BROCKVILLE.—Continued.

Damages	
Depreciation	4,030 55
	<u>\$6,052 59</u>

Steam Heating Department:

Total operating expenses—	
Electric	\$20,512 80

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF CHATHAM.

Plant acquired, 1897; rebuilt, 1907.
 Total assessed valuation of real estate in municipality, \$5,537,345.
 Amount at par of bonds issued during year for lighting and power purposes. None.
 Amount of outstanding debentures, 31st December, 1911, \$17,447.84.
 Motive power. Natural gas.
 Number com. arc lamps supplied. Not given.
 Nominal candle power. Not given.
 Number municipal arc lamps. Not given.
 Nominal candle power. Not given.
 Number incandescent lamps supplied. Not given.
 Nominal candle power. Not given.
 Amount of power supplied to customers K.W. Not given.
 Price charged for com. arc lamps. Not given.
 Price charged for com. incandescent lamps. Not given.

Price charged for electric power per K.W. Not given.
 Cost per public arc lamp. Not given.
 Cost per public incandescent lamp. Not given.

Gross earnings from sale of power and lighting. None.

This plant is operated for street lighting only; there is no revenue derived from it, and the expenses of operation are borne out of the consolidated fund of the municipality.

Assets:

Plant, real estate, building equipment, etc.	\$34,000 00
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Liabilities:

Debentures current	\$17,447 84
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ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF COLLINGWOOD.

Plant acquired or installed, 1889-1890.
 Total assessed valuation of real estate in municipality. Not given.
 Amount at par of bonds issued during year for lighting and power purposes. None.
 Amount of outstanding debentures, 31st December, 1911, \$20,000.
 Motive power. Steam and gas.
 Number com. arc lamps supplied, 12.
 Nominal candle power, 800.
 Number municipal arc lamps, 68.
 Nominal candle power, 1,200.
 Number incandescent lamps supplied:
 Municipal, 300, 16 C.P.
 Commercial, 9,500, 16 C.P.
 Nominal candle power,
 Amount of power supplied to customers, K.W., 15 H.P.
 Price charged for com. arc lamps, 12½, less 20%.
 Price charged for com. incandescent lamps, 12½, less 20%.
 Price charged for electric power per K.W., 5 to 1½ K.W.
 Cost per public arc lamp, 47.28.
 Cost per public incandescent lamp, \$1.34.

Street inc. lights	60 00
Meter rents	675 00

\$19,545 94

Less operating expenses 13,958 15

\$5,587 79

Deductions from net

income	
Interest on debenture debt	\$2,387 89
Sinking fund	376 24
Reconstruction reserve fund	
Other deductions	<u>\$2,764 13</u>

Surplus \$2,823 66

Assets:

Plant, real estate, building equipment, etc., 1911....	\$44,389 10
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Liabilities:

Debentures current, 1911 ..	\$20,000 00
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Operating Expenses.

Production:

Salaries, production	\$3,106 38
Labour production	
Fuel	3,689 69
Oil, waste and sundries ...	

Gross earnings from sale of power and lighting:
 Commercial arc and inc. lights by meter \$14,830 94
 do public buildings 200 00
 Street arc lights 3,780 00

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF CHATHAM.—*Continued.*

Water	180 16	Repairs, subways and cables	
Water rights	20 14	Repairs, meters	
Repairs, buildings and structures		Repairs, transformers	
Repairs, motive power.....	656 00	Repairs, commercial arc lamps	
Repairs, electric apparatus.	464 49		
Station expense	340 49	General Expense:	
Insurance	288 48	Office salaries	\$466 50
Distribution:		Office expense	77 55
Salaries, distribution	\$1,013 20	Registering and collecting..	
Sub-station labour and expense		Legal expense	
Distribution expense	279 10	General expense	448 75
Incandescent lamp renewals.		Advertising	
Wiring and jobbing		Leaseholds, rentals, etc.	
Operating and repairing street lamps	501 67	Damages	
Repairs, sub-station buildings and apparatus		Depreciation	1,424 55
Repairs, poles and lines ...		Steam Heating Department:	
		Total operating expenses—	
		Electric	\$13,957 15

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF DRESDEN.

Plant acquired or installed. Not given.	Liabilities:		
Total assessed valuation of real estate in municipality, \$449,680.	Debentures current	7,859 11	
Amount at par of bonds issued during year for lighting and power purposes. None.	Operating Expenses.		
Amount of outstanding debentures, 31st December, 1911, \$7,859.11.	Production:		
Motive power. Steam.	Salaries, production \$895 63		
Number com. arc lamps supplied. None.	Labour, production.		
Nominal candle power.	Fuel	1,192 97	
Number municipal arc lamps. None.	Oil, waste and sundries		
Nominal candle power.	Water	314 84	
Number incandescent lamps supplied:	Water rights		
Municipal, 75, 32 C.P.	Repairs, buildings and structures ...	31 94	
Commercial, 1,450, 16 C.P.	Repairs, motive power		
Nominal candle power,	Repairs, electric apparatus	708 40	
Amount of power supplied to customers K.W. None.	Station expense		
Price charged for com. arc lamps.	Power purchased ..		\$3,143 78
Price charged for com. incandescent lamps, 50c. per mo.			
Price charged for electric power per K.W. 25c. per mo. for dwellings.	Distribution:		
Cost per public arc lamp. Not given.	Salaries, distribution		
Cost per public incandescent lamp. Not given.	Sub-station labour and expense		
Gross earnings from sale of power and lighting, \$4,389.77.	Distribution expense \$368 99		
Less operating expenses	Incandescent lamp renewals		
	Wiring and jobbing		
	Operating and repairing street lamps		
	Repairs, sub-station buildings and apparatus		
	Repairs, poles and lines		
	Repairs, subways and cables	22 50	\$391 49
	Repairs, meters ...		
	Repairs, transformers		
Deductions from net income..			
Interest on debenture debt....			
Sinking fund			
Reconstruction reserve fund ..			
Other deductions			
Surplus or deficit			
Assets:			
Plant, real estate, building equipment, etc.			\$14,500 00

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF DRESDEN.—Continued.

Repairs, commercial arc lamps			Advertising		
General expense:			Leaseholds, rentals, etc.		
Office salaries	\$50 00		Damages		
Office expense			Depreciation	290 00	
Registering and collecting	50 00	\$100 00	Steam Heating Department:		
Legal expense			Total operating expenses—		
General expense			Electric	\$3,925 27	

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF DUNDALK.

Plant acquired or installed, 1899.		Liabilities	
Total assessed valuation of real estate in municipality.		Debentures current	\$2,928 00
Amount at par of bonds issued during year for lighting and power purposes, \$450.		Operating Expenses.	
Amount of outstanding debentures, 31st December, 1911, \$2,928.		Salaries, production	\$650 00
Motive power. Steam.		Labour, production	
Number com. arc lamps supplied. None.		Fuel	862 00
Nominal candle power. None.		Oil, waste and sundries ...	
Number municipal arc lamps. None.		Water	216 00
Nominal candle power. None.		Water rights	
Number incandescent lamps supplied:		Repairs, buildings and structures	60 00
Municipal, 40.		Repairs, motive power	
Nominal candle power, 32.		Repairs, electric apparatus..	65 00
Commercial, 200 C.P. (16).		Station expense	
Amount of power supplied to customers K.W., 80 H.P.		Power purchased	
Price charged for com. arc lamps. None.		Distribution:	
Price charged for com. incandescent lamps, \$4.20, 16 C.P.		Salaries, distribution	
Price charged for electric power per K.W., \$10.00.		Sub-station labour and expense	
Cost per public arc lamp. Not given.		Distribution expense	
Cost per public incandescent lamp. Not given.		Incandescent lamp renewals	
Gross earnings from sale of power and lighting:		Wiring and jobbing	
From com. incandescent F.L.	\$1,375 00	Operating and repairing street lamps	
From com. incandescent F.L. and arc lights by meter ..	800 00	Repairs, sub-station buildings and apparatus	
Street lighting	450 00	Repairs, poles and lines ...	
	\$2,625 00	Repairs, subways and cables	
From meters	125 00	Repairs, meters	
	\$2,750 00	Repairs, transformers	
Operating expenses	1,853 00	Repairs, commercial arc lamps	
	\$897 00	General expense:	
Deductions from net income ..		Office salaries	
Interest on debenture debt ...	\$266 00	Office expense	
Sinking fund		Registering and collecting ..	
Reconstruction reserve fund ..		Legal expense	
Other deductions		General expense	
Surplus	\$531 00	Advertising	
Assets:		Leaseholds, rentals, etc.	
Plant, real estate, building equipment, etc.	\$6,500 00	Damages	
		Depreciation	
		Steam Heating Department:	
		Total operating expenses—	
		Electric	\$1,853 00

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF FENELON FALLS.

Plant acquired or installed, 1903.
Total assessed valuation of real estate in municipality, \$466,888.

Amount at par of bonds issued during year for lighting and power purposes, \$465.

Amount of outstanding debentures, 31st December, 1911, \$62,650.

Motive power. Water.

Number com. arc lamps supplied. None.

Nominal candle power.

Number municipal arc lamps, 14.

Nominal candle power, 1,500 C.P.

Number incandescent lamps supplied:

Municipal, 50.

Nominal candle power, 50 C.P.

Amount of power supplied to customers, K.W., 90.

Price charged for com. arc lamps. None.

Price charged for com. incandescent lamps.

Price charged for electric power per K.W., \$13.40.

Cost per public arc lamp. Not given.

Cost per public incandescent lamp. Not given.

Gross earnings from sale of power and lighting:

Commercial	\$4,095 61
Street arc lights	150 00
Street incandescent lights....	315 00
Power service	1,060 00
Railway service	240 00
Other items	2,259 77

8,120 28

Operating expenses 3,543 24

\$4,577 14

Deductions from net income..

Interest on debenture debt.... 2,584 00

Sinking fund

Reconstruction reserve fund...

Other deductions

Surplus \$1,993 14

Assets:

Plant, real estate, building equipment, etc.

Liabilities:

Debentures current 62,650 00

Operating Expenses.

Production:

Salaries, production.

Labour, production..

Fuel

Oil, waste and sun-

dries

Water

Water rights

Repairs, buildings

and structures

Repairs, motive

power

Repairs, electric

apparatus

Station expense

Power purchased

Distribution:

Salaries, distribu-
tion\$1,673 06

Sub-station labour

and expense

Distribution expense

Incandescent lamp

renewals

Wiring and jobbing.

Operating and re-

pairing street

lamps

Repairs, substation

buildings and ap-

paratus

Repairs, poles and

lines

Repairs, sub ways

and cables

Repairs, meters.....

Repairs, trans-

formers

Repairs, commercial

arc lamps

General Expense:

Office salaries \$190 00

Office expense 24 50

Registering and col-

lecting

Legal expense and

supplies 1,335 75

General expense

Advertising

Leaseholds, rentals,

insurance, etc.... 319 93

\$3,543 24

Steam Heating Department:

Total operating expenses—

Electric \$3,543 24

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF FORT FRANCES.

Plant acquired or installed, 1909.

Total assessed valuation of real estate in municipality, \$1,972,291.

Amount at par of bonds issued during year for lighting and power purposes.

Amount of outstanding debentures, 31st December, 1911, \$10,000.

Motive power. Water.

Number com. arc lamps supplied. None.

Nominal candle power. None.

Number municipal arc lamps, 33.

Nominal candle power, 2,000.

Number incandescent lamps supplied:

Municipal, 50; 16 C.P.

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF FORT FRANCES.—*Continued.*

Commercial. Not given.
 Nominal candle power, 16.
 Amount of power supplied to customers
 K.W. None.
 Price charged for com. arc lamps. None.
 Price charged for com. incandescent
 lamps, 7c. K.W.H.
 Price charged for electric power per K.W.
 None.
 Cost per public arc lamp, \$50 estimate.
 Cost per public incandescent lamp. Not
 given.

Gross earnings from sale of power and lighting	\$5,514 29
Less operating ex- penses	806 40
	\$4,707.89.

Deductions from net income	
Interest on debenture debt	\$500 00
Payment on principal.	150 40
	650 40
Sinking fund	
Reconstruction reserve fund	
Other deductions	
Surplus	\$4,057 29

Assets:
 Plant, real estate,
 building equip-
 ment, etc. \$17,837 89
 50% depreciation... 891 99

16,945 90

Liabilities:
 Debentures current \$10,000 00

Operating Expenses.

Production:
 Salaries, production.
 Labour, production.
 Fuel

Oil, waste and sun-
 dries
 Water
 Water rights
 Repairs, buildings
 and structures....
 Repairs, motive
 power
 Repairs, electric ap-
 paratus
 Station expense
 Power purchased ..

Distribution:
 Salaries, distribution \$600 00
 Sub-station labour
 and expense
 Distribution expense
 Incandescent lamp
 renewals 9 85
 Wiring and jobbing.
 Operating and re-
 pairing street
 lamps
 Repairs, sub-station
 buildings and ap-
 paratus
 Repairs, poles and
 lines 6 10
 Repairs, subways
 and cables
 Repairs, meters ... 54 75
 Repairs, trans-
 formers
 Repairs, commercial
 arc lamps

General Expense:

Office salaries 120 00
 Office expense
 Registering and col-
 lecting 15 70

Steam Heating Department:
 Total operating expenses—
 electric \$806 40

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF FORT WILLIAM.

Plant acquired or installed, 1898-1899.
 Total assessed valuation of real estate in
 municipality, \$23,049,030.
 Amount at par of bonds issued during
 year for lighting and power pur-
 poses. None.
 Amount of outstanding debentures, 31st
 December, 1911.
 Motive power. Water.
 Number com. arc lamps supplied. Not
 given.
 Nominal candle power. Not given.
 Number municipal arc lamps, 162.
 Nominal candle power.
 Number incandescent lamps supplied:
 Municipal, 400; 80 C.P.

Commercial, 20,000; 16 C.P.
 Nominal candle power.
 Amount of power supplied to customers
 K.W. Not given.
 Price charged for com. arc lamps, \$54
 per annum.
 Price charged for com. incandescent
 lamps: 32, 90c.; 16, 45c.; 10, 35c.;
 5, 20c. per month.
 Price charged for electric power per K.W.
 Not given.
 Cost per public arc lamp, \$40.09 per year.
 Cost per public incandescent lamp. Not
 given.
 Gross earnings from
 sale of power and

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF FORT WILLIAM.—*Continued.*

lighting:	
Commercial service	\$75,451 89
Municipal service.	11,282 04
	<u>\$86,733 93</u>
Less operating expenses.....	52,663 84
	<u>\$34,070 09</u>
Deductions from net income	
Interest on debenture debt	\$19,017 69
Rebate, McKellar Hospital ..	796 80
Sinking fund	
Per cent. reserve bad debts	946 32
Reconstruction reserve fund	
Other deductions ..	
	<u>20,760 81</u>
Surplus	<u>\$13,309 28</u>
Assets:	
Plant, real estate, building equipment, etc.	\$227,150 00
Liabilities:	
Debentures current	\$211,366 11

Operating Expenses.

Production:	
Salaries, production	\$10,191 70
Labour, production	
Fuel	
Oil, waste and sundries....	
Water	
Water rights	
Repairs, buildings and structures ..	
Repairs, motive power.....	
Repairs, electric apparatus.	
Station expense	
Power purchased	
	<u>32,510 46</u>

Distribution:	
Salaries, distribution	\$4,195 90
Sub-station labour and expense	
Distribution expense	
Incandescent lamp renewals.	
Wiring and jobbing	
Operating and repairing street lamps	
Repairs sub-station buildings and apparatus	
Repairs, poles and lines	
Repairs, subways and cables ..	
Repairs, meters, and meters ..	
Repairs, transformers	2,667 95
Repairs, commercial arc lamps.	2,325 95

General Expense:	
Office salaries ..	
Office expense ..	20 88
Registering and collecting ..	
Rent	751 00
Legal expense ..	
General expense..	
Advertising ..	
Leaseholds, rentals, etc.	
Damages	
Depreciation ..	
	<u>9,961 68</u>

Total operating expenses..... \$52,663 84

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF GRAVENHURST.

Plant acquired or installed, 1907.	
Total assessed valuation of real estate in municipality, \$530,934.	
Amount at par of bonds issued during year for lighting and power purposes.	
None.	
Amount of outstanding debentures, 31st December, 1911, \$81,328.74.	
Motive power. Water.	
Number com. arc lamps supplied, 2.	
Nominal candle power, 1,000 C.P.	
Number municipal arc lamps. None.	
Nominal candle power, 0.	
Number incandescent lamps supplied.	
Municipal, 110; commercial, 3,832.	
Nominal candle power, 32 C.P.; 16 C.P.	
Amount of power supplied to customers K.W., 210 K.W.	

Price charged for com. arc lamps, \$45.	
Price charged for com. incandescent lamps, \$3.60.	
Price charged for electric power per K.W. \$15 H.P.	
Cost per public arc lamp. Not given.	
Cost per public incandescent lamp. Not given.	

Operating Expenses.

Production:	
Salaries, production	\$1,260 75
Labour, production	65 70
Fuel	
Oil, waste and sundries....	45 00
Water	
Water rights	

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF GRAVENHURST.—Continued.

Repairs, buildings and structures		Damages	
Repairs, motive power		Depreciation	
Repairs, electric apparatus	395 00	Total operating expenses	\$5,469 80
Station expense	146 30	Gross Earnings from Sale of Power and Lighting:	
Power purchased		Commercial	\$7,458 95
Distribution:		Municipal	3,641 37
Salaries, distribution	1,082 99	Rent of meters	100 00
Sub-station labour and expense	22 50		<u>\$11,200 32</u>
Distribution expense		Less operating expenses	5,469 80
Incandescent lamp renewals	10 00		<u>\$5,730 52</u>
Wiring and jobbing		Deductions from net income	
Operating and repairing street lamps	120 00	Interest on debenture debt	\$3,880 73
Repairs, sub-station buildings and apparatus	22 50	Sinking fund	267 45
Repairs, poles and lines			<u>4,148 18</u>
Repairs, subways and cables	1,225 67	Reconstruction reserve fund	
Repairs, meters		Other deductions	
Repairs, transformers	25 00		
Repairs, commercial arc lamps	26 44	Surplus	\$1,582 34
General Expense:		Assets:	
Office salaries	440 00	Plant, real estate, building equipment, etc.	\$90,001 53
Office expense		Liabilities:	
Registering and collecting	124 70	Debentures current	\$81,328 74
Legal expense	35 00	Sinking fund	563 77
General expense	143 17		<u>\$80,764 97</u>
Advertising	234 08		
Leaseholds, rentals, etc.	45 00		

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF KINGSTON.

Plant acquired or installed, 1904.		Deductions from net income	
Total assessed valuation of real estate in municipality, \$8,436,972.		Debenture paid	\$8,892 13
Amount at par of bonds issued during year for lighting and power purposes, \$13,000.		Sinking fund	
Amount of outstanding debentures, 31st December, 1911, \$279,680.60.		Reconstruction reserve fund	
Motive power. Steam.		Other deductions	
Number com. arc lamps supplied. None.		Surplus or deficit	\$3,492 04
Nominal candle power. None.		Assets:	
Number municipal arc lamps, 173.		Plant, real estate, building equipment, etc.	\$400,260 55
Nominal candle power, 2,000.		Liabilities:	
Number incandescent lamps supplied. None.		Debentures current	* 279,680 60
Nominal candle power. None.			
Amount of power supplied to customers K.W. No record.		* Includes debentures issued <i>re</i> Gas Plant.	
Price charged for com. arc lamps. None.		Operating Expenses.	
Price charged for com. incandescent lamps, 10c. K.W.H.		Production:	
Price charged for electric power per K.W., 4c. to 10c. K.W.H.		Salaries, production	\$1,400 00
Cost per public arc lamp, \$60, estimated.		Labour, production	8,725 65
Cost per public incandescent lamp. Not given.		Fuel	10,026 82
Gross earnings from sale of power and lighting	\$51,937 19	Oil, waste and sundries	
Less operating expenses	39,553 02	Water	668 16
	<u>\$12,384 17</u>	Water rights	86 87
		Repairs, buildings and structures	794 14
		Repairs, motive power	

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF KINGSTON.—*Continued.*

Repairs, electric apparatus	925 64
Station expense	88 98
Carbons arc lamps..	336 42
Stable arc	171 10
	\$23,226 78

Distribution:	
Salaries, distribution	
Sub-station labour and expense	
Distribution expense	
Incandescent lamp renewals	
Wiring and jobbing	
Operating and repairing street lamps	
Repairs, sub-station buildings and apparatus	
Repairs, poles and lines	\$2,666 03

Repairs, subways and cables	
Repairs, meters....	1,076 09
Repairs	
Repairs, commercial arc lamps	1,592 22
	\$5,334 34

General Expense:	
Office salaries	\$562 50
Office expense, rent.	100 00
Registering and collecting	
Taxes	2,289 02
General expense ..	1,036 60
Insurance	321 78
Damages	
Depreciation	6,682 00
	\$10,991 90

Steam Heating Department:

Total operating expenses—	
Electric	\$39,553 02

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF KINCARDINE.

Plant acquired or installed, 1894.
Total assessed valuation of real estate in municipality, \$736,892.

Amount at par of bonds issued during year for lighting and power purposes. None.

Amount of outstanding debentures, 31st December, 1911, \$7,363.30.

Motive power. Steam.

Number com. arc lamps supplied. None.

Nominal candle power. None.

Number municipal arc lamps, 20.

Nominal candle power, 1,500 C.P.

Number incandescent lamps supplied:

Commercial, 3,000, 32 C.P.

Municipal, 27, 32 C.P.

Nominal candle power, 16.

Amount of power supplied to customers K.W. None.

Price charged for com. arc lamps. None.

Price charged for com. incandescent lamps, 10c. K.W.H. net.

Price charged for electric power per K.W. None.

Cost per public arc lamp. None.

Cost per public incandescent lamp. Not given.

Gross earnings from sale of power and lighting

Less operating expenses

Deductions from net income

Interest on debenture debt

Sinking fund

Surplus

Assets:

Plant, real estate, building equipment, etc.	\$21,317 53
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Liabilities:

Debentures current	\$7,363 30
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Operating Expenses.

Production:

Salaries, production	\$1,522 00
Labour, production.	
Fuel	1,480 09
Oil, waste and sundries	
Water	140 81
Water rights	
Repairs, buildings and structures ...	
Repairs, motive power	
Repairs, electric apparatus	
Station expense ...	133 36
Power purchased ..	
	\$3,276 26

Distribution:

Salaries, distribution	\$50 58
Sub-station labour and expense	
Distribution expense	
Incandescent lamp renewals	39 00
Wiring and jobbing.	289 93
Operating and repairing street lamps	
Repairs, sub-station buildings and apparatus	

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF KINCARDINE.—Continued.

Repairs, poles and lines	133 36
Repairs, subways and cables	
Repairs, meters	147 20
Repairs, transformers	
Repairs, commercial arc lamps	49 00

\$709 07

General expense:	
Office salaries	\$125 00
Office expense	24 70
Registering and collecting	
Legal expense	
General expense ...	6 50
	\$156 20

Steam Heating Department:

Total operating expenses—	
Electric	\$4,141 53

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF MADOC VILLAGE.

Plant acquired or installed, Sept. 26th, 1904.

Total assessed valuation of real estate in municipality, \$335,128.62.

Amount at par of bonds issued during year for lighting and power purposes, \$2,313.94.

Amount of outstanding debentures, 31st December, 1912, \$9,401.56.

Motive power. Steam.

Number com. arc lamps supplied. None.

Nominal candle power. None.

Number municipal arc lamps, 12.

Nominal candle power, 200.

Number incandescent lamps supplied:

Municipal, 18, 32 C.P.

Commercial, 1,300, 16 C.P.

Nominal candle power,

Amount of power supplied to customers K.W., 45 K.W.

Price charged for com. arc lamps. None.

Price charged for com. incandescent lamps, \$4.50, 16 C.P.

Price charged for electric power per K.W.

Cost per public arc lamp, \$50.

Cost per public incandescent lamp, \$8, 32 C.P.

Operating Expenses.

Production:

Salaries, production	\$250 00
Labour, production	150 00
Fuel	
Oil, waste and sundries	
Water	
Water rights	
Repairs, buildings and structures	
Repairs, motive power	
Repairs, electric apparatus	
Station expense ...	300 00
Power purchased ..	2,425 00

\$3,125 00

Distribution:

Salaries, distribution	\$700 00
Sub-station labour and expense	
Distribution expense	200 00
Incandescent lamp renewals	

Wiring and jobbing.	50 00
Operating and repairing street lamps	150 00
Repairs, sub-station buildings and apparatus	
Repairs, poles and lines	25 00
Repairs, subways and cables	
Repairs, meters	
Repairs, transformers	
Repairs, commercial arc lamps	12 38
	\$1,137 38

General expense:

Office salaries	
Office expense	
Registering and collecting	
Legal expense	\$17 59
General expense ...	
Advertising	
Leaseholds, rentals, etc.	
Damages	
Depreciation	

Steam Heating Department:

Total operating expenses—	
Electric	\$4,279 97

Gross earnings from sale of power and lighting	\$4,480 73
Less operating expenses	4,279 97
	\$200 76
Deductions from net income ..	
Interest on debenture debt and debenture paid	\$1,144 97
Sinking fund	
Reconstruction reserve fund..	
Other deductions	

Deficit \$944 21

Assets:

Plant, real estate, building equipment, etc.	\$15,836 46
Liabilities:	
Debentures current	\$9,401 56

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF MIDLAND.

Plant acquired or installed, 1903.
Total assessed valuation of real estate in municipality, \$1,673,885.
Amount at par of bonds issued during year for lighting and power purposes, \$13,000.
Amount of outstanding debentures, 31st December, 1911, \$13,000.
Motive power. Steam.
Number com. arc lamps supplied. None.
Nominal candle power. None.
Number municipal arc lamps, 47.
Nominal candle power, 1,000 C.P.
Number incandescent lamps supplied:
Municipal, 54, 16-100.
Commercial. No record.
Nominal candle power. Not given.
Amount of power supplied to customers
K.W. None.
Price charged for com. arc lamps. None.
Price charged for com. incandescent lamps, 12c. K.W.H.
Price charged for electric power per K.W. None sold.
Cost per public arc lamp, \$35, estimated.
Cost per public incandescent lamp, \$3.60, estimated.
Gross earnings from sale of
power and lighting \$11,095 96
Street lighting 2,266 64
..... \$13,362 60
Less operating expenses 4,809 27
..... \$8,553 33

Deductions from net
income
Interest on debenture
debt \$1,646 58
Principal paid 1,469 79
Reconstruction reserve
fund
Other deductions
..... \$3,116 37

Surplus \$5,436 96
Assets:

Plant, real estate, building
equipment, etc. \$50,935 09

Liabilities:
Debentures current \$13,000 00

Operating Expenses.

Production:
Salaries, production \$2,001 84
Labour, production.
Fuel 1,374 04
Oil, waste and sun-
dries
Water 186 05
Water rights
Repairs, buildings
and structures
Repairs, motive
power 26 91
Repairs, electric ap-
paratus
Station expense ... 40 31
Power purchased
..... \$3,629 15

Distribution:
Salaries, distribution
Sub-station labour and ex-
pense
Distribution expense \$689 88
Incandescent lamp renewals.
Wiring and jobbing
Operating and repairing
street lamps
Repairs, sub-station build-
ings and apparatus
Repairs, poles and lines.... ..
Repairs, subways and cables
Repairs, meters
Repairs, transformers
Repairs, commercial arc
lamps

General expense:
Office salaries
Office expense
Registering and col-
lecting \$191 56
Legal expense
General expense .. 298 68
Advertising
Leaseholds, rentals,
etc.
Damages
Depreciation
..... \$490 24

Steam Heating Department:

Total operating expenses—
Electric \$4,809 27

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF MILTON.

Plant acquired or installed, 1905.
Total assessed valuation of real estate in municipality, \$558,791.
Amount at par of bonds issued during year for lighting and power purposes, \$2,400.
Amount of outstanding debentures, 31st December, 1911, \$5,349.95.
Motive power. Steam.
Number com. arc lamps supplied. None.

Nominal candle power. None.
Number municipal arc lamps, 20.
Nominal candle power, 1,000.
Number incandescent lamps supplied:
Municipal, 70.
Commercial, 1,728.
Nominal candle power, 16 C.P.
Amount of power supplied to customers
K.W. None.
Price charged for com. arc lamps. None.

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF MILTON.—Continued.

Price charged for com. incandescent lamps, 10c. K.W.H.
 Price charged for electric power per K.W. None.
 Cost per public arc lamp, \$40.
 Cost per public incandescent lamp. Not given.

Operating Expenses.

Production:

Salaries, production	\$800 00
Labour, production	
Fuel	140 62
Oil, waste and sundries	1,700 00
Water	105 00
Water rights	
Repairs, buildings and structures	
Repairs, motive power	
Repairs, electric apparatus..	
Station expense	
Power purchased	150 00

Distribution:

Salaries, distribution	
Sub-station labour and expense	
Distribution expense	
Incandescent lamp renewals	
Wiring and jobbing	134 00
Operating and repairing street lamps	
Repairs, sub-station buildings and apparatus	
Repair, poles and lines	
Repairs, subways and cables	
Repairs, meters	
Repairs, transformers	
Repairs, commercial arc lamps	

General expense:

Office salaries	
Office expense	
Registering and collecting ..	
Legal expense	
General expense	10 00
Advertising	
Leaseholds, rentals, etc.	
Damages	
Depreciation	

Steam Heating Department:

Total Operating Expenses—	
Electric	\$3,039 62

Gross earnings from sale of power and lighting	\$3,718 16
Public arc lights	1,000 00

	\$4,718 16
Less operating expenses	3,039 62
	<u>\$1,678 54</u>

Deductions from net income ..	
Interest on debenture debt ...	\$692 55
Sinking fund	
Reconstruction reserve fund..	
Other deductions	

Surplus	<u>\$985 99</u>
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Assets:

Plant, real estate, building equipment, etc.	\$12,000 00
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Liabilities:

Debentures current	\$5,349 95
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ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF MORRISBURG.

Plant acquired or installed, 1905-1906.
 Total assessed valuation of real estate in municipality, \$1,240,000.
 Amount at par of bonds issued during year for lighting and power purposes. None.
 Amount of outstanding debentures, 31st December, 1911, \$32,000.
 Motive power. Steam.
 Number com. arc lamps supplied, 5.
 Nominal candle power, 1,200.
 Number municipal arc lamps, 38.
 Nominal candle power, 1,200.
 Number incandescent lamps supplied. Commercial, 3,250.
 Nominal candle power, 8-16 C.P.
 Amount of power supplied to customers K.W. None.
 Price charged for com. arc lamps, \$70.
 Price charged for com. incandescent lamps, \$15.
 Price charged for electric power per K.W. None.

Cost per public arc lamp, \$70.
 Cost per public incandescent lamp, \$15.

Gross earnings from sale of power and lighting	\$5,740 45
Lighting streets and public buildings	1,040 00

	\$6,780 45
Less operating expenses	2,971 21
	<u>\$3,809 24</u>

Deductions from net income..	
Interest on debenture debt...	\$1,755 60
Sinking fund	
Reconstruction reserve fund..	
Other deductions	

Surplus or deficit	<u>\$2,053 64</u>
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Assets:

Plant, real estate, building equipment, etc.	\$32,000 00
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Liabilities:

Operating Expenses.

Production:

Salaries, production	\$1,434 45
Labour, production	152 81
Fuel	
Oil, waste and sundries	
Water	
Water rights	
Repairs, buildings and structures.. . . .	
Repairs, motive power	
Repairs, electric apparatus	69 08
Station expense	
Power purchased, rental	540 00

Distribution:

Salaries, distribution	
Substation labour and expense	
Distribution expense	
Incandescent lamp renewals	
Wiring and jobbing	
Operating and repairing street lamps .	
Repairs, substation buildings and apparatus	
Repairs, poles and lines ...	
Repairs, subways and cables	
Repairs, meters	
Repairs, transformers	
Repairs, commercial arc lamps	

General Expense:

Office salaries	
Office expense	5 95
Registering and collecting	
Legal expense	
General expense	
Advertising	
Leaseholds, rent- als, etc.	
Damages	
Depreciation	

Total operating expenses	\$2,971	21
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ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF MOUNT FOREST.

Plant acquired or installed, 1901.

Total assessed valuation of real estate
in municipality, \$7,069.30.

Amount at par of bonds issued during year for lighting and power purposes, \$694.

Amount of outstanding debentures, 31st December, 1911, \$12,000.

Motive power. Steam.

Number com. arc lamps supplied. None.

Nominal candle power. None.

Number municipal arc lamps. None.

Nominal candle power. None.

Number incandescent lamps supplied, 40
C.P.;

Municipal, 155:

Nominal candle power, 16 C.P.

Commercial, 1,500.

Amount of power supplied to customers
K.W. None.

Price charged for com. arc lamps. None.

Price charged for com. incandescent
lamps. 10c. K.W.H.

Price charged for electric power per
K.W. None.

Cost per public arc lamp. None.

Cost per public incandescent lamp, \$6.

Gross earnings from sale of power and lighting	\$4,723 66
Less operating expenses	3,220 00

\$1,503 66

Deductions from net income..	
Interest on debenture debt....	\$694 00

Sinking fund .....	.....
Reconstruction reserve fund..	

Other deductions

Surplus or deficit	\$809 66
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ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF MOUNT FOREST.—*Continued.*

Assets:
Plant, real estate, building
equipment, etc. \$16,000 00

Liabilities:
Debentures current \$9,431 69

Operating Expenses.

Production:
Salaries, production \$1,250 00
Labour, production.
Fuel 1,700 00
Oil, waste and sun-
dries
Water
Water rights
Repairs, buildings
and structures
Repairs, motive
power 100 00
Repairs, electric ap-
paratus
Station expense
Power purchased

Distribution:
Salaries, distribu-
tion
Sub-station labour
and expense
Distribution ex-
pense

Incandescent lamp
renewals 150 00
Wiring and jobbing
Operating and re-
pairing street
lamps
Repairs, sub-station
buildings and ap-
paratus
Repairs, poles and
lines
Repairs, subways
and cables
Repairs, meters ... 20 00
Repairs, transform-
ers
Repairs, commercial
arc lamps \$3,220 00

General Expense:
Office salaries
Office expense
Registering and col-
lecting
Legal expense
General expense ...
Advertising
Leaseholds, rentals,
etc.
Damages
Depreciation
Total operating expenses \$3,220 00

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF NIAGARA.

Plant acquired or installed, 1893.
Total assessed valuation of real estate
in municipality, \$666,541.50.
Amount at par of bonds issued during
year for lighting and power pur-
poses, \$4,166.62.
Amount of outstanding debentures, 31st
December, 1911, \$1,825,850.
Motive power. Water.
Number com. arc lamps supplied. None.
Nominal candle power. None.
Number municipal arc lamps. None.
Nominal candle power. None.
Number incandescent lamps supplied:
Municipal, 300; commercial, 3,600.
Nominal candle power, 16 and 32 C.P.
Amount of power supplied to customers
K.W. 4 H.P.
Price charged for com. arc lamps. None.
Price charged for com. incandescent
lamps. 10c. K.W.H.; 10 or 30 per
cent. discount.
Price charged for electric power per
K.W., \$21.85 5 H.P.
Cost per public arc lamp, 18—over 5 H.P.
Cost per public incandescent lamp, \$1.25.

Operating Expenses.

Production:
Salaries, production
Labour, production.
Fuel \$138 85
Oil, waste and sun-
dries 59 72
Water
Water rights
Repairs, buildings
and structures
Repairs, motive
power
Repairs, electric ap-
paratus
Station expense ...
Power purchased .. 912 46
\$1,111 03

Distribution:
Salaries, distribu-
tion \$846 58
Sub-station labour
and expense
and expense

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF NIAGARA.—*Continued.*

Distribution expense	
Incandescent lamp renewals	
Wiring and jobbing	
Operating and repairing street lamps	
Repairs, sub-station buildings and apparatus ..	\$2,209 01
Repairs, poles and lines	
Repairs, subways and cables	
Repairs, meters ..	
Repairs, transformers	
Repairs, commercial arc lamps ..	
	\$3,055 59

General Expense:

Office salaries	
Office expense	
Registering and collecting	
Legal expense	
General expense ..	

Advertising	
Leaseholds, rentals, etc.	
Damages	
Depreciation	
Total operating expenses	\$4,166 62
Gross earnings from sale of power and lighting	\$3,279 46
From street lighting	2,000 00
	\$5,279 46
Less operating expenses	4,166 62
	\$1,112 84
Deductions from net income..	
Interest on debenture debt....	
Sinking fund	\$2,648 00
Reconstruction reserve fund..	
Other deductions	
Deficit ..	\$1,535 16

Assets:

Plant, real estate, building equipment, etc.	\$33,000 00
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Liabilities:

Debentures current	\$18,258 50
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ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF NIAGARA FALLS.

Plant acquired or installed, 1900.
 Total assessed valuation of real estate in municipality. Not given.
 Amount at par of bonds issued during year for lighting and power purposes. None.
 Amount of outstanding debentures, 31st December, 1911, \$90,797.79.
 Motive power. Gravity.
 Number com. arc lamps supplied, 12.
 Nominal candle power, 2,000 C.P.
 Number municipal arc lamps, 122.
 Nominal candle power, 2,000 C.P.
 Number incandescent lamps supplied:
 Municipal, 110, 32 C.P.; Commercial, 3,500, 8-16-32 C.P.
 Amount of power supplied to customers K.W., 600.
 Price charged for com. arc lamps, \$84.
 Price charged for com. incandescent lamps. Per schedule.
 Price charged for electric power per K.W. \$8 to \$20 net.
 Cost per public arc lamp, \$84.
 Cost per public incandescent lamp, \$6 for 32 C.P.

Gross earnings from sale of power and lighting ..	\$33,874 62
Street arc and incandescent lights.	9,175 61
Other sources	330 05
	\$43,380 28

Less operating expenses ..	\$26,508 17
Debentures paid ...	7,515 85
	34,024 02
	\$9,356 26

Deductions from net income	
Interest on debenture debt ..	\$4,022 00
Sinking fund	
Refund to city	3,500 00
Reconstruction reserve fund ..	
Other deductions	
	7,522 00

Surplus ..	\$1,834 26
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Assets:

Plant, real estate, building equipment, etc. (1910)...	\$131,943 88
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Liabilities:

Debentures current	\$90,797 79
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Operating Expenses.

Production:	
Salaries, production ..	\$6,081 50
Labour, production.	
Fuel ..	

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF NIAGARA FALLS.—Continued.

Oil, waste and sundries	33 56	Repairs, poles and lines . . . . .	.....
Water . . . . .	.....	Repairs, subways and cables . . . . .	.....
Water rights . . . . .	.....	Repairs, meters . . . . .	.....
Repairs, buildings and structures... .	289 13	Repairs, transformers . . . . .	.....
Repairs, motive power	331 87	Repairs, commercial arc lamps... .	.....
Repairs, electric apparatus	164 06		
Station expense . . . . .	.....	General Expense:	
Power purchased .10,109 16		Office salaries . . . . .	.....
Distribution:		Office expense . . . . .	.....
Salaries, distribution, labour	1,492 64	Registering and collecting, insurance	389 12
Sub-station labour and expense . . . . .	.....	Legal expense . . . . .	.....
Distribution expense . . . . .	.....		
Incandescent lamp renewals . . . . .	.....	General expense..	
Wiring and jobbing . . . . .	.....	Advertising	} \$1,013 58
Operating and repairing street lamps . . . . .	.....	Leaseholds, rentals, etc.	
Repairs, sub-station buildings and apparatus . . . . .	.....	Damages	
		Depreciation	
			\$19,904 62
		Other expenses	\$6,603 55
		Total operating expenses	\$26,508 17

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF NORTH TORONTO.

Plant acquired or installed, 1911-1912.	Gross earnings from sale of power and lighting. None.
Total assessed valuation of real estate in municipality, \$3,968,220.	Less operating expenses. None.
Amount at par of bonds issued during year for lighting and power purposes, \$20,000.	Deductions from net income... ..
Amount of outstanding debentures, 31st December, 1911, \$20,000.	Interest on debenture debt
Motive power. Ont. Power Co.	Sinking fund
Number com. arc lamps supplied. Not given.	Reconstruction reserve fund
Nominal candle power. Not given.	Other deductions
Nominal candle power.	Surplus or deficit
Number municipal arc lamps. Not given.	Assets:
Number incandescent lamps supplied: Municipal, 60.	Plant, real estate, building equipment, etc. \$21,522 05
Nominal candle power. Not given.	Liabilities:
Amount of power supplied to customers K.W. Not given.	Debentures current \$20,000 00
Price charged for com. arc lamps. Not given.	Operating expenses:
Price charged for com. incandescent lamps. Not given.	Salaries—production
Price charged for electric power per K.W.,	Wages—production....
Cost per public arc lamp, \$32, est.	Fuel
Cost per public incandescent lamp, \$12, est.	Oil, waste and sundries
	Repairs
	General expense
	Depreciation
	Total operating expenses

None; plant only completed end of 1911.

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF NEWMARKET.

Plant acquired or installed, 1897.

Total assessed valuation of real estate in municipality, \$1,101,975.

Amount at par of bonds issued during year for lighting and power purposes. None.

Amount of outstanding debentures, 31st December, 1911, \$1,090,587.

Motive power. Steam.

Number com. arc lamps supplied, 6.

Nominal candle power, 80.

Number municipal arc lamps. None.

Nominal candle power. None.

Number incandescent lamps supplied:

Municipal, 103, 32 C.P.

Commercial, 3,500.

Nominal candle power, 5, 8, 16 C.P.

Amount of power supplied to customers K.W. None.

Price charged for com. arc lamps, 10c. K.W.H.

Price charged for com. incandescent lamps, 10c. K.W.H.

Price charged for electric power per K.W. None sold.

Cost per public arc lamp. Not given.

Cost per public incandescent lamp. Not given.

Gross earnings from sale of power and lighting	\$6,830 55
Less operating expenses	7,116 75

Deficit	\$286 20
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Deductions from net income	
Interest on debenture debt, 4½	\$10,905 87
	\$494 25

Sinking fund

Reconstruction reserve fund

Other deductions

Deficit	\$780 45
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Assets:

Plant, real estate, building equipment, etc.	\$18,075 00
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Liabilities:

Debentures current	\$10,905 87
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Operating Expenses.

Production:

Salaries, production	\$1,080 00
Labour, production.	
Fuel	100 00
Oil, waste and sundries	3,977 09
Water	100 00
Water rights	
Repairs, buildings and structures ..	
Repairs, motive power	
Repairs, electric apparatus	
Station expense	
Power purchased ..	
	\$5,257 09

Distribution:

Salaries, distribution	
Sub-station labour and expense	
Distribution expense	
Incandescent lamp renewals	
Wiring and jobbing	
Operating and repairing street lamps	
Repairs, sub-station buildings and apparatus	
Repairs, poles and lines ...	
Repairs, subways and cables	
Repairs, meters	
Repairs, transformers	
Repairs, commercial arc lamps	

General expense:

Office salaries	
Office expense	
Registering and collecting	\$100 00
Legal expense	
General expense ...	20 00
Advertising	
Leaseholds, rentals, etc.	10 00
Damages	65 85
Depreciation	1,663 81
	\$1,859 66

Steam Heating Department:

Total operating expenses—	
Electric	\$7,116 75

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF OTTAWA.

Plant acquired or installed, 1901.

Total assessed valuation of real estate in municipality, \$76,186,690.

Amount at par of bonds issued during year for lighting and power purposes. None.

Amount of outstanding debentures 31st December, 1911, \$430,000.

Motive power. Water power.

Number com. arc lamps supplied, 234.

Nominal candle power, 2,000 C.P.

Number municipal arc lamps, 650.

Nominal candle power, 2,000 C.P.

Number incandescent lamps supplied:

Municipal, 2,00, 10, 16, 32 C.P.

Commercial, 86,190.

Tungstens, 2,000, 100 Watt.

Amount of power supplied to customers K.W., 1,050 H.P.

Price charged for com. arc lamps, \$36 per year.

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF OTTAWA.—Continued.

Price charged for com. incandescent lamps, \$2.52 flat, or 7 1-5 per K.W. net.

Price charged for electric power per K.W., \$25 to \$29.

Cost per public arc lamp, \$38.

Cost per public incandescent lamp, \$2.52.

Operating expenses:

Paid for power	\$41,000 00
Salaries, production	32,927 01
Wages, production	
Fuel	
Oil, waste and sundries	
Repairs and installation ...	10,291 60
General expenses	13,937 85
Depreciation	

Total operating expenses . \$98,156 46

Gross earnings from sale of power and lighting\$153,102 83

Less operating expenses 98,156 46

\$54,946 37

Deductions from net

income	
Interest on debenture debt	\$17,200 00
Sinking fund	9,030 00
Reconstruction reserve fund	
Interest on advances	1,000 00
Other deductions ...	\$27,230 00
Surplus	\$27,716 37

Assets:

Plant, real estate, building equipment, etc.	\$447,836 63
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Liabilities:

Debentures current	\$430,000 00
Less sinking fund	43,038 77
	\$386,961 23

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF OWEN SOUND.

Plant acquired or installed, 1903.

Total assessed valuation of real estate in municipality, \$7,104,586.

Amount at par of bonds issued during year for lighting and power purposes, 1910, \$7,000.

Amount of outstanding debentures, 31st December, 1911, \$121,000.

Motive power. Steam.

Number com. arc lamps supplied, 43.

Nominal candle power, 1,000.

Number municipal arc lamps, 83

Nominal candle power, 2,000.

Number incandescent lamps supplied:

Municipal, 132, 22 C.P.

Commercial, 20,000, 16 C.P.

Nominal candle power,

Amount of power supplied to customers K.W., \$764.84.

Price charged for com. arc lamps, \$6.40 per K.W.

Price charged for com. incandescent lamp, \$6.40 per K.W.

Price charged for electric power per K.W., 2c. and 1c. K.W.

Cost per public arc lamp, \$65.

Cost per public incandescent lamp, \$12.

Gross earnings from sale of power and lighting\$23,425 12

Street arc lights
 5,740 00 |

Street incandescent lights ...
 1,729 18 |

Commercial power service ...
 8,215 58 |

From other sources
 1,232 85 |

\$40,342 73

Less operating expenses 21,634 82

\$18,707 91

Deductions from net

income	
Interest on debenture debt	\$5,755 00
Sinking fund	5,195 75
Reconstruction reserve fund	
Other deductions ...	\$10,950 75
Surplus ...	\$7,757 16

Assets:

Plant, real estate, building equipment, etc.	\$120,997 62
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Liabilities:

Debentures current	\$121,000 00
Sinking fund	28,467 70
Net debt	\$93,532 30

Operating Expenses.

Production:

Salaries, production	\$1,675 00
Labour, production	5,784 07
Fuel	8,501 96
Oil, waste and sundries...	
Water	
Water rights	
Repairs, buildings and structures	4,277 98
Repairs, motive power ...	
Repairs, electric apparatus	
Station expense	
Power purchased	

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF OWEN SOUND.—Continued.

Distribution:		Registering and collecting	
Salaries distribution		Legal expense	
Sub-station labour and expense		Insurance	383 02
Distribution expense		General expense	
Incandescent lamp renewals		Advertising	
Wiring and jobbing		Leaseholds, rentals, etc.	
Operating and repairing street lamps		Damages	
Repairs, sub-station buildings and apparatus		Depreciation, discount debentures.	117 24
Repairs poles and lines			\$1,395 81
Repairs, subways and cables			
Repairs, meters			
Repairs, transformers			
Repairs, com. arc lamps			
General Expense:		Steam Heating Department:	
Office salaries	\$750 00	Total operating expenses—	
Office expense	145 55	Electric	\$21,634 82

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF PARIS.

Plant acquired or installed, 1901.	Distribution:	
Total assessed valuation of real estate in municipality, \$1,700,000.	Salaries, distribution	
Amount at par of bonds issued during year for lighting and power purposes. None.	Sub-station, labour and expense	\$402 00
Amount of outstanding debentures, 31st December, 1911, \$31,000.	Distribution expense	
Motive power. Steam and water.	Incandescent lamp renewals	
Number com. arc lamps supplied. None.	Wiring and jobbing	
Nominal candle power.	Operating and repairing street lamps	
Number municipal arc lamps, 35.	Repairs, sub-station buildings and apparatus	
Nominal candle power, 350 C.P.	Repairs, poles and lines...	
Number incandescent lamps supplied:	Repairs, subways and cables	
Municipal, 300.	Repairs, meters	
Commercial, 4,000.	Repairs, transformers ...	
Nominal candle power, 16.	Repairs, com. arc lamps..	
Amount of power supplied to customers K.W. None.	General expense:	
Price charged for com. arc lamps,	Office salaries	
Price charged for com. incandescent lamps, 7c. and 8c. K.W.	Office expense	
	Registering and collecting	
	Legal expense	
	General expense	
	Advertising	
	Leaseholds, rentals, etc. ...	361 00
	Damages	
	Depreciation	

Operating Expenses.

Production:		Steam Heating Department:	
Salaries, production	\$2,084 00	Total operating expenses—	
Labour, production		Electric	\$5,216 00
Fuel	2,069 00	Gross earnings from sale of power and lighting	
Oil, waste and sundries			\$11,126 00
Water	100 00	Less operating expenses	5,216 00
Water rights			\$5,910 00
Repairs, buildings and structures		Deductions from net income..	
Repairs, motive power		Interest on debenture debt, \$31,000	\$1,240 00
Repairs, electric apparatus.	200 00	Sinking fund	
Station expense			
Power purchased			

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF PARIS.—*Continued.*

Reconstruction reserve fund	
Other deductions	
Surplus	\$4,670 00

Assets:

Plant, real estate, building equipment, etc.	\$57,000 00
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Liabilities:

Debentures current	\$31,000 00
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ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF PERTH.

Operating Expenses.

Plant acquired or installed, 1904.	
Total assessed valuation of real estate in municipality, \$1,647,760.	
Amount at par of bonds issued during year for lighting and power purposes.	
None.	
Amount of outstanding debentures, 31st December, 1911, \$10,100.	
Motive power. Water.	
Number com. arc lamps supplied, 4.	
Nominal candle power, 2,000 C.P.	
Number municipal arc lamps, 38.	
Nominal candle power, 2,000 C.P.	
Number incandescent lamps supplied.	
None.	
Nominal candle power,	
Amount of power supplied to customers K.W.	
Price charged for com. arc lamps, \$44.00.	
Price charged for com. incandescent lamps. None.	
Price charged for electric power per K.W.	
Cost per public arc lamp, \$50.	
Cost per public incandescent lamp. None.	
Gross earnings from sale of power and lighting:	
From commercial arc lights, flat	\$331 87
do lamps, public buildings	175 00
From street arc lights	2,080 00
Rents	168 00
	\$2,754 87
Less operating expenses	1,501 33
	\$1,253 54
Deductions from net income	
Interest on debenture debt	\$416 00
Sinking fund	300 00
Reconstruction reserve fund	\$716 00
Other deductions	
Surplus	\$537 54
Assets:	
Plant, real estate, building equipment, etc.	

Liabilities:

Debentures current	\$10,100 00
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Production:

Salaries, production	\$390 00
Labour, production	
Fuel	39 98
Oil, waste and sundries	14 72
Water	
Water rights	
Repairs, buildings and structures	17 53
Repairs, motive power	37 14
Repairs, electric apparatus.	344 98
Station expense	43 58
Power purchased	

Distribution:

Salaries, distribution	
Sub-station labour and expense	
Distribution expense	
Incandescent lamp renewals and tender	385 00
Wiring and jobbing	
Operating and repairing street lamps	
Repairs, sub-station buildings and apparatus	
Repairs, poles and lines ...	21 50
Repairs, subways and cables	
Repairs, meters	
Repairs, transformers	
Repairs, com. arc lamps, etc.	96 22

General expense:

Office salaries	\$150 00
Office expense	
Registering and collecting.. ..	
Legal expense	
General expense	50 68
Advertising	
Leaseholds, rentals, etc.	
Damages	
Depreciation	

Steam Heating Department:

Total operating expenses—	
Electric	\$1,501 33

Total operating expenses—	
Electric	\$13,894 71

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF PORT ARTHUR.—Continued.

Price charged for com. incandescent lamps, 8c. for first hour, plus $3\frac{1}{2}$ per K.W. hour.

Price charged for electric power per K.W. $2\frac{1}{2}$ c. for first 50 hours, $1\frac{1}{4}$ second (50); 1c. for balance of time.

Cost per public arc lamp. None.

Cost per public incandescent lamp, 60 Watt, \$5.00; 100 Watt, \$8.30.

Operating Expenses.

Production:

Salaries, production	\$3,643 25
Labour, production	2,280 00
Fuel	1,630 82
Oil, waste and sundries	
Water	
Water rights	
Repairs, buildings and structures	\$3,951 25
Repairs, motive power ..	
Repairs, electric apparatus	
Station expense	
Power purchased	

Distribution:

Salaries, distribution	\$3,246 61
Sub-station labour and expense ..	
Distribution expense	
Incandescent lamp renewals	
Wiring and jobbing	
Operating and repairing street lamps	
Repairs, sub-station buildings and apparatus ..	
Repairs, poles and lines..	
Repairs, subways and cables	\$5,992 44
Repairs, meters	
Repairs, transformers ..	
Repairs, commercial arc lamps	

General Expense:

Office salaries	
Office expense	

Registering and collecting..	
Legal expense	
General expense	
Advertising	
Leaseholds, rentals, etc.	\$600 00
Damages, insurance	300 00
Depreciation	

Steam Heating Department:

Total operating expenses—

Electric

Gross earnings from sale of power and lighting	146,183 35
Less operating expenses	101,644 37
	\$44,538 98

Deductions from net income	
Interest on debenture debt:	
Light ..	7,590 30
Power ..	19,249 03
	\$26,839 33

Sinking fund:

Light ...	\$267 00
Power ..	4,662 88
	4,929 88

Reserve fund for bad debts

debts	801 70
Other deductions	\$32,570 91

Surplus

Assets:

Plant, real estate, building equipment, etc.	\$456,439 07
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Liabilities:

Debentures current	\$438,331 06
Sinking fund ...	38,917 25

Net debt

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF ST. MARY'S.

Plant acquired or installed, 1900-1901.

Total assessed valuation of real estate in municipality, \$1,526,837.

Amount at par of bonds issued during year for lighting and power purposes.

Amount of outstanding debentures, 31st December, 1911, \$15,000.

Motive power. Steam.

Number com. arc lamps supplied. None.

Nominal candle power,

Number municipal arc lamps, 47.

Nominal candle power, 500.

Number incandescent lamps supplied:

Municipal, 32, 60 C.P.

Commercial, 5,000.

Nominal candle power, 16 C.P.

Amount of power supplied to customers K.W., 300 K.W.

Price charged for com. arc lamps. None.

Price charged for com. incandescent lamps, 7c. to 12c. K.W.

Price charged for electric power per K.W. \$12 to \$15.

Cost per public arc lamp, \$67.

Cost per public incandescent lamp, \$13.

Gross earnings from sale of

power and lighting

Street lighting

Town Hall

Less operating expenses

\$12,900 90

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF ST. MARY'S.—Continued.

Deductions from net income	Details of operation expenses not given, same being bulked with expenses of Water Works plant.
Interest on debenture debt.....	
Sinking fund.....	
Reconstruction reserve fund.....	
Other deductions...	

Surplus or deficit

Assets:

Plant, real estate, building equipment, etc.

Liabilities:

Debentures current

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF STREETSVILLE.

Plant acquired or installed, 1908.	
Total assessed valuation of real estate in municipality, \$205,000.	
Amount at par of bonds issued during year for lighting and power purposes. None.	
Amount of outstanding debentures, 31st December, 1911, \$26,008.09.	
Motive power. Steam.	
Number com. arc lamps supplied. None.	
Nominal candle power. None.	
Number municipal arc lamps. None.	
Nominal candle power,	
Number incandescent lamps supplied:	
Municipal, 40.	
Commercial. Not given.	
Nominal candle power, 32 C.P.	
Amount of power supplied to customers K.W.	
Price charged for com. arc lamps,	
Price charged for com. incandescent lamps, 6c. K.W.H.	
Price charged for electric power per K.W. None sold.	
Cost per public arc lamp. None.	
Cost per public incandescent lamp. Not given.	
Gross earnings from sale of power and lighting	\$1,750 88
Less operating expenses	600 00
	<u>\$1,150 88</u>

Operation Expenses.

Production:

Salaries, production	\$600 00
Labour, production	
Fuel	
Oil, waste and sundries	
Water	
Water rights	
Repairs, buildings and structures	
Repairs, motive power	
Repairs, electric apparatus.	
Station expense	
Power purchased	

Distribution:

Salaries, distribution	
Sub-station labour and expense	
Distribution expense	
Incandescent lamp renewals	
Wiring and jobbing	
Operating and repairing street lamps	
Repairs, sub-station buildings and apparatus	
Repairs, poles and lines.....	
Repairs, subways and cables	
Repairs, meters	
Repairs, transformers	
Repairs, com. arc lamps ...	

General Expense:

Office salaries	
Office expense	
Registering and collecting..	
Legal expense	
General expense	
Advertising	
Leaseholds, rentals, etc.	
Damages	
Depreciation	

Steam Heating Department:

Total operating expenses—	
Electric	

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF THAMESVILLE.

Plant acquired or installed, 1903.	
Total assessed valuation of real estate in municipality, \$257,898.	
Amount at par of bonds issued during year for lighting and power purposes	

Amount of outstanding debentures 31st December, 1911, \$4,744.58.	
Motive power. Steam.	
Number com. arc lamps supplied. None.	
Nominal candle power. None.	
Number municipal arc lamps. None.	

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF THAMESVILLE.—*Continued.*

Nominal candle power.	
Number incandescent lamps supplied:	
Municipal, 54, 32 C.P.; Commercial,	
1,000, 16 C.P.	
Nominal candle power.	
Amount of power supplied to customers	
K.W. None.	
Price charged for com. arc lamps.	
Price charged for com. incandescent	
lamps. \$10 per year, 32 C.P.	
Price charged for electric power per	
K.W. Not given.	
Cost per public arc lamp. Not given.	
Cost per public incandescent lamp. Not	
given.	
Gross earnings from sale of	
power and lighting	\$3,444 91
Less operating expenses	3,186 50
	\$258 41
Deductions from net income..	
Interest on debenture debt..	
Sinking fund	\$375 90
Reconstruction reserve fund..	
Other deductions	
Deficit	\$117 49

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF THOROLD.

Plant acquired or installed, 1888.	
Total assessed valuation of real estate	
in municipality, \$985,152.	
Amount at par of bonds issued during	
year for lighting and power pur-	
poses. None.	
Amount of outstanding debentures 31st	
December, 1911, \$5,520.42.	
Motive power. Water.	
Number com. arc lamps supplied	
Nominal candle power.	
Number municipal arc lamps.	
Nominal candle power.	
Number incandescent lamps supplied:	
Municipal, 100, 60 C.P.; Commercial,	
3,500, 16 C.P.	
Nominal candle power,	
Amount of power supplied to customers	
K.W.	
Price charged for com. arc lamps.	
Price charged for com. incandescent	
lamps, 4c. 16; 248 C.P.	
Price charged for electric power per K.W.	
Cost per public arc lamp.	
Cost per public incandescent lamp. \$1.25.	
Gross earnings from	
sale of power and	
lighting	\$4,507 03
Sale of lamps	431 40
	\$4,938 43
Other revenue	631 00
	\$5,569 43
Less operating ex-	
penses	5,520 42
	\$49 01

Assets:	
Plant, real estate, building	
equipment, etc.	\$7,500 00

Liabilities:	
Debentures current	4,744 58

Operating Expenses.

Production:	
Salaries, produc-	
tion	\$901 49
Wages, produc-	
tion	
Fuel	1,507 69
Oil, waste and	
sundries	39 83
Repairs	737 49
General expenses.	
Depreciation	
Total operating expenses	\$3,186 50

Deductions from net income.	
Interest on debenture debt,	
4½% \$5,520.42	248 42
Sinking fund	
Reconstruction reserve fund..	
Other deductions	
Deficit	\$199 41

Assets:	
Plant, real estate, building	
equipment, etc.	\$25,000 00

Liabilities:	
Debentures current	\$5,520 42

Operating Expenses.

Production:	
Salaries, production	\$1,694 54
Labour, production	
Fuel	122 55
Oil, waste and sundries...	54 99
Water	
Water rights	115 00
Repairs, building and struc-	
tures, extension	1,798 55
Repairs, motive power	
Repairs, electric apparatus.	415 50
Station expense	1,020 29
Power purchased	299 00

Distribution:	
Salaries, distribution	

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF THOROLD.—*Continued.*

Sub-station labour and expense
Distribution expense
Incandescent lamp renewals
Wiring and jobbing
Operating and repairing street lamps
Repairs, sub-station buildings and apparatus
Repairs, poles and lines ..
Repairs, subways and cables
Repairs, meters
Repairs, transformers
Repairs, com. arc lamps...

General Expense:
Office salaries
Office expense
Registering and collecting..
Legal expense
General expense
Advertising
Leaseholds, rentals, etc....
Damages
Depreciation

Total operating expenses \$5,520 42

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF WESTON.

Plant acquired or installed, 1899.
Total assessed valuation of real estate in municipality, \$1,068.50.
Amount at par of bonds issued during year for lighting and power purposes. None.
Amount of outstanding debentures, 31st December, 1911, \$19,342.17.
Motive power. Steam.
Number com. arc lamps supplied. None.
Nominal candle power. None.
Number municipal arc lamps. None.
Nominal candle power. None.
Number incandescent lamps supplied: Municipal, 150.
Nominal candle power. 80 C.P.
Amount of power supplied to customers K.W. None.
Price charged for com. arc lamps. None.
Price charged for com. incandescent lamps. Not given.
Price charged for electric power per K.W. None.
Cost per public arc lamp. None.
Cost per public incandescent lamp. Not given.
Gross earnings from sale of
Surplus .. \$2,341 42
Less operating expenses .. 4,818 92
<u>\$3,305 20</u>

Deductions from net income.. ..
Interest on debenture debt .. \$963 78
Sinking fund
Reconstruction reserve fund ..
Other deductions
<u>Surplus .. \$2,341 42</u>

Assets:

Plant, real estate, building equipment, etc. \$25,209 98

Liabilities:

Debentures current .. \$19,342 17

Operating Expenses.

Production:
Salaries, production
Labour, production
Fuel
Oil, waste and sundries ..
Water
Water rights
Repairs, buildings and structures
Repairs, motive power
Repairs, electric apparatus
Station expense
Power purchased

\$11 50
3,221 09

Distribution:
Salaries, distribution
Sub-station labour and expense .. \$632 03
Distribution expense
Incandescent lamp renewals.. 155 54
Wiring and jobbing
Operating and repairing street lamps
Repairs, sub-station buildings and apparatus
Repairs, poles and lines
Repairs, subways and cables
Repairs, meters
Repairs, transformers
Repairs, commercial arc lamps

General Expense:

Office expense
Office salaries
Registering and collecting.. 240 36
Legal expense
General expense
Insurance
Leaseholds, rentals etc. ... 76 15
Damages
Depreciation

Steam Heating Department:

Total operating expenses—
Electric

\$4,818 92

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF WINGHAM.

Plant acquired or installed, 1903.
Total assessed valuation of real estate
in municipality, \$80,400.
Amount at par of bonds issued during
year for lighting and power purposes.
None.

Amount of outstanding debentures, 31st
December, 1911, \$31,402.93.

Motive power. Steam.

Number com. arc lamps supplied, 10.

Nominal candle power, 1,200.

Number municipal arc lamps, 30.

Nominal candle power, 2,000.

Number incandescent lamps supplied:

Municipal, 112, 16 C.P.

Commercial, 7,000.

Nominal candle power, .

Amount of power supplied to customers
K.W., 53 K.W.

Price charged for com. arc lamps, 8c.
K.W. net.

Price charged for com. incandescent
lamps, 8c. K.W. net.

Price charged for electric power per
K.W., 35 H.P.

Cost per public arc lamp, \$55, estimate.

Cost per public incandescent lamp. Not
given.

Gross earnings from
sale of power and
lighting \$11,609 40

Com. arc lights \$60 00

Com. inc. lights, flat

rate 31 27

Com. inc. lights 7,282 10

Street arc lights 1,710 00

Installations 2,526 03

7,003 43

Less operating expenses 4,605 97

Deductions from net income.. ..

Interest on debenture debt

Sinking fund

Reconstruction reserve fund.. ..

Other deductions

Surplus or deficit

Assets:

Plant, real estate, building
equipment, etc. \$30,009 00

Liabilities:

Debentures cur-
rent \$37,000 00

Sinking fund.... \$5,597 07

\$31,402 93

Operating Expenses.

Production:

Salaries, production \$1,407 40

Labour, production

Fuel 361 20

Oil, waste and sundries 60 17

Water

Water rights

Repairs, buildings and struc-
tures

Repairs, motive power 426 68

Repairs, electric apparatus.

Station expense

Power purchased

Distribution:

Salaries distribution \$1,035 91

Sub-station labour and ex-
pense

Distribution expense 211 56

Incandescent lamp renewals

Wiring and jobbing 510 00

Operating and repairing

street lamps 1,716 99

Repairs, sub-station build-
ings and apparatus 75 00

Repairs, poles and lines.... ..

Repairs, subways and cables 123 43

Repairs, meters 356 45

Repairs, transformers

Repairs, com. arc lamps ... 201 00

General expense:

Office salaries \$161 67

Office expense

Registering and collecting.. 45 00

Legal expense

General expense

Advertising 197 36

Leaseholds, rentals, etc. ... 1 26

Damages

Depreciation, Insurance ... 112 35

Steam Heating Department:

Total operating expenses—

Electric \$7,003 43

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF WINDSOR.

Plant acquired or installed, 1891.

Total assessed valuation of real estate
in municipality, \$13,187,525.

Amount at par of bonds issued during
year for lighting and power purposes.

Amount of outstanding debentures, 31st
December, 1911, \$12,326.

Motive power. Steam.

Number com. arc lamps supplied (to
railways), 3.

Nominal candle power, 450 C.P.

Number municipal arc lamps, 3.

Nominal candle power, 1,000 C.P.

Number incandescent lamps supplied.

None.

Nominal candle power. None.

Amount of power supplied to customers
K.W. None.

Price charged for com. arc lamps, \$72
per year.

Price charged for com. incandescent
lamps. None.

ELECTRIC LIGHT AND POWER WORKS, MUNICIPALITY OF WINDSOR.—Continued.

Price charged for electric power per K.W.	None.
Cost per public arc lamp,	\$55.
Cost per public incandescent lamp.	None.
Gross earnings from sale of power and lighting	\$666 59
Less operating expenses	12,035 46
	\$11,368 87
Deductions from net income.. ..	
Interest on debenture debt	
Sinking fund	
Reconstruction reserve fund.. ..	
Other deductions	
Surplus or deficit	
Assets:	
Plant, real estate, building equipment, etc.	\$38,223 10
Liabilities:	
Debentures current	

Operating Expenses.

Production:	
Salaries, production	
Labour, production	
Fuel	
Oil waste and sundries ..	
Water	
Water rights	
Repairs, buildings and structures	
Repairs, motive power ...	
Repairs, electric apparatus	
Station expense	
Power purchased	
Distribution:	
Salaries, distribution ...	
Sub-station labour and expense	
Distribution expense	
Incandescent lamp renewals	
Wiring and jobbing	
Operating and repairing street lamps	
Repairs, sub-station buildings and apparatus ...	
Repairs, poles and lines..	
Repairs, subways and cables	
Repairs, meters	
Repairs, transformers ...	
Repairs, com. arc lamps...	
General expense:	
Office salaries	
Office expense	
Registering and collecting	
Legal expense	
General expense	
Advertising	
Leaseholds, rentals, etc. .	
Damages	
Depreciation	
Steam Heating Department:	

No details given.
\$12,035 46

Total operating expenses—
Electric \$12,035 46

WATER WORKS, MUNICIPALITY OF AMHERSTBURG.

Plant installed,	
Gravity or pumping system. Pumping and gravity.	
Number of gallons pumped per year, 90,000,000.	
Total daily capacity of pumps, 2,000,000.	
Average daily consumption, 250,000.	
Cost of production for 1,000 gallons. Not given.	
Population of municipality, 2,500.	
Gross earnings:	
From sale of water	\$4,400 00
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	
Total income	
Less operating expenses	
Surplus or deficiency for year	
Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$1,700 00
Office supplies and expenses	
Insurance	20 00
Legal expenses and damages	

Other expenses	
Wages	
Supplies—Fuel	\$2,300 00
Pumping station supplies	500 00
Filtration supplies.	
Other supplies....	
Other supplies	
For repairs and renewals	
Interest on bonds or loans	
Total cost of production...	\$4,520 00

Capital Expenditure.

Reservoirs	
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings	
Other assets	
Total assets	
Debentures or bonds current.	
Bank overdraft	
Municipal overdraft	
Total liabilities	

WATER WORKS, MUNICIPALITY OF ARNPRIOR.

Plant installed, 1901.	
Gravity or pumping system. Pumping.	
Number of gallons pumped per year, 125,000,000.	
Total daily capacity of pumps, 1,960,000 gals.	
Average daily consumption, 340,000 gals.	
Cost of production for 1,000 gals., .072.	
Population of municipality, 4,200.	

Supplies—Fuel	\$3,976 30
Pumping station supplies	142 77
Filtration supplies..	14 88
Other supplies	
	4,133
For repairs and renewals	\$584 49
Interest on bonds or loans	1,915 92
	2,500
Total cost of production....	\$8,985 00

Capital Expenditure.

Gross earnings:	
From sale of water	\$6,364 14
By meter	
By contract	
From hydrant rentals	2,345 00
From permits tapping mains	
From other sources	
Total income	\$8,709 14
Less operating expenses.....	8,985 35
Deficiency for year	\$276 21
Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$1,746 68
Office supplies and expenses	30 20
Insurance	
Legal expenses and damages	
Other expenses	18 55
Wages	555 56
	\$2,350 99

Reservoirs	\$840 00
Cost of pumping equipment..	8,350 00
Cost of service pipes	
Cost of hydrants and mains..	41,420 00
Cost of real estate and buildings	3,989 00
Other assets, distribution tanks, filters, etc.	24,723 00
Total assets	\$79,322 00
Debentures or bonds current.	\$44,422 00
Bank overdraft	
Municipal overdraft	
Total liabilities	\$44,422 00

WATER WORKS, MUNICIPALITY OF AYLMER.

Plant installed, 1910.	
Gravity or pumping station. Gravity and pumping.	
Number of gallons pumped per year. No record.	
Total daily capacity of pumps. No record.	
Average daily consumption. No record.	
Cost of production for 1,000 gallons. No record.	
Population of municipality, 2,179.	
Gross earnings:	
From sale of water.....	\$3,827 51
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	
Total income	\$3,827 51
Less operating expenses	4,341 70
Deficiency for year	\$514 19
Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	
Office supplies and expenses	\$501 18
Insurance	

Legal expenses and damages	
Other expenses	
Wages	770 83
Supplies—Fuel	906 02
	\$2,178 03
Pumping station supplies	
Filtration supplies.. ..	
Other supplies	
For repairs and renewals	
Interest on bonds or loans, \$54,091.89, 4%	2,163 67
Total cost of production....	\$4,341 70
Capital Expenditure.	
Reservoirs	}
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings	}
Total assets	
Debentures or bonds current..	\$54,091 89
Bank overdraft	
Municipal overdraft	
Total liabilities	
	\$54,091 89

WATER WORKS, MUNICIPALITY OF BARRIE.

Plant installed, 1890.	
Gravity or pumping system. Pumping.	
Number of gallons pumped per year, 62,678,500.	
Total daily capacity of pumps, 2,000,000 gals.	
Average daily consumption, 172,000 gals.	
Cost of production for 1,000 gals., 16.8.	
Population of municipality, 6,500.	
Gross earnings:	
From sale of water	
By meter and flat rates..	\$9,052 56
By contract	
From hydrant rentals	3,555 00
From permits tapping mains	
From other sources	133 98
Total income	\$12,741 54
Less operating expenses	10,536 11
Surplus for year	\$2,205 43
Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$2,121 66
Office supplies and expenses	45 00
Insurance	66 16
Legal expenses and damages	50 00
Other expenses	
Wages	497 57
	\$2,780 39

Supplies—Fuel	\$1,232 09
Pumping station supplies	
Filtration supplies.. ..	
Other supplies	161 02
	1,393 11
For repairs and renewals	\$0 27
Interest on bonds or loans	3,033 00
Debentures paid	3,329 34
	6,362 61
Total cost of production...	\$10,536 11
Capital Expenditure.	
Reservoirs	}
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings	}
Other assets	
Total assets	\$130,248 04
Debentures or bonds current.	\$81,466 72
Capital account	34,533 28
Petty debts	11 04
Total liabilities	
	\$116,011 04

*Value at which plant was taken over under arbitration.

WATER WORKS, MUNICIPALITY OF BERLIN.

Plant installed 1888.
 Acquired by municipality, 1898.
 Gravity or pumping system. Pumping.
 Number of gallons pumped per year,
 331,834,000.
 Total daily capacity of pumps, 2,000,000.
 Average daily consumption, 909,000.
 Cost of production for 1,000 gallons, .048.
 Population of municipality, 15,338.

Gross earnings:

From sale of water
 By meter \$21,844 32
 By contract 2,729 99
 From sale of meters, rent.. 2,419 70
 From hydrants 5,125 00
 From other sources 2,743 59

Total income \$34,862 60
 Less operating expenses 16,062 57

Surplus for year \$18,800 03

Operating expenses \$2,320 00

Salaries of officers,
 superintendents,
 clerks, etc.
 Office supplies and
 expenses 710 21
 Insurance 10 00
 Legal expenses and
 damages
 Other expenses 170 25
 Wages 2,660 00
 \$5,870 46

Supplies—Fuel \$77 48
 Power fuel 5,334 29
 Pumping station
 supplies 625 74
 Filtration supplies
 Other supplies
 \$6,037

For repairs and re-
 newals \$706 73
 Interest on bonds
 or loans 3,447 87
 \$4,154 60

Total cost of production.. \$16,062 57

Capital Expenditure.

Reservoirs
 Cost of mains
 Cost of service pipes
 Cost of hydrants
 Cost of real estate and
 buildings
 Other assets
 Depreciation 31,757 00

Total assets \$229,008

Debentures or bonds current. \$85,465
 Bank overdraft 2,026
 Municipal over draft

Total liabilities \$87,491

WATER WORKS, MUNICIPALITY OF BRACEBRIDGE.

Plant installed, 1895.
 Gravity or pumping system. Combined
 gravity and pumping.
 Number of gallons pumped per year,
 36,000,000.
 Total daily capacity of pumps, 2,102,000.
 Average daily consumption, 98,000.
 Cost of production for 1,000 gallons, .08.
 Population of municipality, 3,000.

Gross earnings:

From sale of water
 By meter } \$3,413 55
 By contract }
 From hydrant rentals 1,250 00
 From permits tapping mains
 From other sources

Total income \$4,663 55

Less operating expenses 2,885 41

Surplus for year 1,778 14

Operating expenses:

Salaries of officers,
 superintendents,
 clerks, etc. \$807 59
 Office supplies and
 expenses 27 56
 Insurance

Legal expenses and
 damages
 Other expenses 73 69
 Wages
 \$908

Supplies—Fuel \$24 40
 Pumping station
 supplies
 Filtration supplies . 27 17
 51

Other supplies 589
 For repairs and renewals
 Interest on bonds or loans .. 1,335

Total cost of production.. \$2,885

Capital Expenditure.

Reservoirs
 Cost of mains
 Cost of service pipes
 Cost of hydrants
 Cost of real estate and build-
 ings
 Other assets 3,865

Total assets \$47,919
 Debentures or bonds current.. \$32,875
 Bank over draft
 Municipal over draft

Total liabilities \$32,875

WATER WORKS, MUNICIPALITY OF BRAMPTON.

lant installed, 1881.
 ravity or pumping system. Pumping
 and gravity.
 umber of gallons pumped per year,
 83,950,000 gals.
 otal daily capacity of pumps, 468,000
 gals.
 verage daily consumption, 230,000 gals.
 ost of production for 1,000 gallons.
 .0624.
 opulation of municipality, 3,412.

Gross earnings:

From sale of water.
 By meter \$86 00
 By contract 7,214 12
 From sale of meters
 From permits tap-
 ping mains
 From other sources
 ----- \$7,300 12
 Total income \$7,300 12
 ss operating expenses 5,242 64

 rplus for year \$2,057 48

Operating expenses:

Salaries of officers,
 superintendents,
 clerks, etc. \$925 00
 Office supplies and
 expenses 73 62
 Insurance
 Legal expenses and
 damages 100 00

Other expenses
 Wages
 ----- \$1,098 62

Supplies—Fuel ... }
 Pumping station } \$2,565 66
 supplies
 Filtration supplies.
 Other supplies 626 00
 ----- \$3,191 66
 For repairs and renewals \$952 36
 Interest on bonds or loans ..

 Total cost of production.. \$5,242 64

Capital Expenditure.

Wells
 Reservoirs }
 Cost of mains } \$3,358 21
 Cost of service pipes
 Cost of hydrants
 Cost of real estate and build-
 ings \$99,022 19
 Other assets

 Total assets \$102,380 40

Debentures or bonds current
 Bank overdraft
 Municipal overdraft

 Total liabilities

WATER WORKS, MUNICIPALITY OF BRIDGEBURG.

nt installed, 1903.
 avity or pumping system. Pumping.
 umber of gallons pumped per year,
 255,000.
 al daily capacity of pumps. No
 record.
 erage daily consumption. No record.
 st of production for 1,000 gallons. No
 record.
 opulation of municipality, 1,771.

Gross earnings:

From sale of water
 By meter
 By contract \$1,500 00
 From sale of meters
 From permits tapping mains
 From other sources 4,584 46

 Total income \$6,084 46
 s operating expenses 5,086 44

 plus for year \$998 02

Office supplies and
 expenses 31 50
 Insurance
 Legal expenses and
 damages
 Other expenses
 Wages 1,302 63
 ----- \$1,484 58
 Supplies—Fuel ... \$725 96
 Pumping station
 supplies 200 56
 ----- 926 52
 Filtration supplies..
 Other supplies
 For repairs and re-
 newals \$332 14
 Interest on bonds or
 loans .. 462 64
 Debenture paid 1,880 56
 ----- 2,675 34

Total cost of production.... \$5,086 44

Capital Expenditure.

Reservoirs
 Cost of mains \$15,000 00
 Cost of service pipes 7,000 00

Operating expenses:

Salaries of officers,
 superintendents,
 clerks, etc. \$150 45

WATER WORKS, MUNICIPALITY OF BRIDGEBURG.—Continued.

Cost of hydrants ..	1,500 00	Debentures or bonds current.	\$35,622 00
Cost of real estate		Bank overdraft	
and buildings ...	5,000 00	Municipal overdraft	
Other assets	22,964 67		
Total assets	\$51,464 67	Total liabilities	\$35,622 00

WATER WORKS, MUNICIPALITY OF BROCKVILLE.

Plant installed, 1882; acquired, 1892.	Other expenses	861 44
Gravity or pumping station. Pumping.	Wages	3,347 94
Number of gallons pumped per year,		\$6,714 68
1,045,136,827.	Supplies—Fuel ...	\$4,026 38
Total daily capacity of pumps, 7,000,000	Pumping station	
gals.	supplies	963 04
Average daily consumption, 2,860,000 gals.		\$4,989 42
Cost of production for 1,000 gals., .0313.	Filtration supplies	\$2,019 28
Population of municipality, 9,500.	Other supplies	
Gross earnings:	Bad debts	8,856 68
From sale of water	For repairs and renewals...	852 98
By meter	Interest on bonds or loans...	9,247 20
By contract		
From sale of meters	Total cost of production...	\$32,680 17
From permits tapping	Capital Expenditure—1892, \$148,370.87.	
mains		
From other sources	Reservoirs, well and intake..	\$6,547 70
	Cost of mains	43,676 30
Total income	Cost of service pipes	12,123 00
Less operating expenses.....	Cost of hydrants	
	Cost of real estate and build-	
Surplus for year	ings	27,678 50
	Other assets	37,945 10
Operating expenses:	Total assets	\$276,341 60
Salaries of officers,	Debentures or bonds current.	\$135,656 20
superintendents,	Bank overdraft, less sinking	
clerks, etc.	fund	\$83,640 10
Office supplies and	Municipal overdraft	
expenses		
Insurance	Total liabilities, net	\$52,016 10
Legal expenses and		
damages		

WATER WORKS, MUNICIPALITY OF COLLINGWOOD.

Plant installed, 1899.	Operating expenses:	
Gravity or pumping system. Pumping.	Salaries of officers,	
Number of gallons pumped per year,	superintendents,	
378,925,500.	clerks, etc.	\$993 00
Total daily capacity of pumps, 2,500,000.	Office supplies and	
Average daily consumption, 1,038,000.	expenses	145 11
Cost of production for 1,000 gallons, .035.	Insurance	
Population of municipality, 7,000.	Legal expenses and	
Gross earnings:	damages	182 41
From sale of water	Other expenses	
By meter	Wages	1,396 25
By contract		\$2,716 70
From sale of meters	Supplies—Fuel	\$3,566 85
From permits tapping mains	Pumping station	
From other sources	supplies	60 03
	Filtration supplies ..	
Total income	Other supplies	200 40
Less operating expenses		\$3,827 20
Surplus for year	For repairs and renewals ...	\$848 10
	Interest on bonds or loans ..	5,924 10
	Total cost of production..	\$13,316 30

WATER WORKS, MUNICIPALITY OF COLLINGWOOD.—Continued.

Capital Expenditure.

Reservoirs
 Cost of mains
 Cost of service pipes
 Cost of hydrants
 Cost of real estate and build-
 ings

Other assets

Total assets \$73,914 53

Debentures of bonds current . \$37,967 79

Bank overdraft

Municipal overdraft

Total liabilities \$37,967 79

WATER WORKS, MUNICIPALITY OF CORNWALL.

Plant installed, 1887.
 Gravity or pumping system. Combined
 pumping and gravity system.
 Number of gallons pumped per year,
 525,000,000.

Total daily capacity of pumps, 2,500,000.
 Average daily consumption, 1,438,000 gals.
 Cost of production for 1,000 gallons, .0197.
 Population of municipality, 6,269.

Gross earnings:

From sale of water
 By meter
 By contract
 From sale of meters
 From permits tapping mains
 From other sources
 Total income
 Less operating expenses 10,344 90

Surplus for year \$5,657 15

Operating expenses:

Salaries of officers,
 superintendents,
 clerks, etc. \$2,482 65
 Office supplies and
 expenses 54 50
 Insurance
 Legal expenses and
 damages
 Other expenses 319 01
 Wages 708 58
 \$3,564 74

Supplies—Fuel \$291 75

Pumping station

supplies 75 53

Filtration supplies .

Other supplies 143 50

510 78

For repairs and re-
 newals \$2,613 05Interest on bonds or
 loans 3,656 33

6,269 38

Total cost of production. \$10,344 90

Capital Expenditure.

Reservoirs
 Cost of mains
 Cost of service pipes
 Cost of hydrants
 Cost of real estate and build-
 ings
 Other assets

\$146,443 00

Total assets \$146,443 00

Debentures or bonds current. 97,219 57

Bank overdraft

Municipal overdraft

Total liabilities \$97,219 57

WATER WORKS, MUNICIPALITY OF CREEMORE.

Plant installed, 1905.
 Gravity or pumping system. Gravity.
 Number of gallons pumped per year.
 Not given.

Total daily capacity of pumps. Not given.
 Average daily consumption. Not given.
 Cost of production for 1,000 gallons. Not
 given.
 Population of municipality, 650.

Capital Expenditure.

Reservoirs
 Cost of mains
 Cost of service pipes
 Cost of hydrants
 Cost of real estate and build-
 ings
 Other assets

\$22,500 00

Total assets

Debentures or bonds current. \$29,009 40

Bank overdraft

Municipal overdraft

Total liabilities *\$29,009 40

Gross earnings:

From sale of water \$600 00

By meter

By contract

From sale of meters

From permits tapping mains

From other sources

Total income

*Includes interest on debentures current.

WATER WORKS, MUNICIPALITY OF CREEMORE.—*Continued.*

Less operating expenses	60 00	Wages	
	\$540 00		\$60 00
	\$68 64		
Deficiency	\$328 54	Supplies—Fuel	
Salaries of officers, superintendents, clerks, etc.	\$60 00	Pumping station supplies ..	
Office supplies and expenses..		Filtration supplies	
Insurance		Other supplies	
Legal expenses and damages..		For repairs and renewals	
Other expenses		Interest on bonds or loans	
		and sinking fund	\$808 64
		Total cost of production..	\$868 64

WATER WORKS, MUNICIPALITY OF DESERONTO.

Plant installed, 1906.		Other expenses	
Gravity or pumping system. Pumping.		Wages	1,635 82
Number of gallons pumped per year. No record.			\$1,709 30
Total daily capacity of pumps, 3,000,000 gals.		Supplies—Fuel	\$3,727 05
Total daily consumption. No record.		Pumping station supplies	407 64
Cost of production for 1,000 gallons. No record.		Filtration supplies..	
Population of municipality, 2,220.		Other supplies	
Gross earnings:			\$4,134 60
From sale of water		For repairs and renewals	214 90
By meter	\$5,273 43	Interest on bonds or loans ...	943 60
By contract			
From sale of meters		Total cost of production..	\$7,002 50
From permits tapping mains			
From other sources			
Total income	\$5,273 43		
Less operating expenses	7,002 53		
Surplus for year	\$1,729 10		

Capital Expenditure.

Reservoirs	
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings	\$38,000 00
Other assets	
Total assets	\$38,000 00
Debentures or bonds current..	\$22,510 00
Bank overdraft	
Municipal overdraft	
Total liabilities	\$22,510 00

WATER WORKS, MUNICIPALITY OF DUNDAS.

Plant installed, 1884.		From sale of meters	
Gravity or pumping system. Gravity.		From permits tapping mains	
Number of gallons pumped per year. Not given.		From other sources	405 50
Total daily capacity of pumps. Not given.		Total income	\$3,528 50
Average daily consumption. Not given.		Less operating expenses	4,105 50
Cost of production for 1,000 gallons. Not given.		Deficiency for year	\$576 50
Population of municipality, 4,326.			
Gross earnings:		Operating expenses:	
From sale of water		Salaries of officers,	
By meter	\$1,721 60	superintendents,	
By contract	1,401 41	clerks, etc.	\$316 00

WATER WORKS, MUNICIPALITY OF DUNDAS.—Continued.

Office supplies and expenses			<i>Capital Expenditure.</i>	
Insurance			Reservoirs	\$5,300 00
Legal expenses and damages			Cost of mains	43,299 71
Other expenses ...	10 28		Cost of service pipes	3,303 78
Wages	96 30		Cost of hydrants	2,592 40
			Cost of real estate and build-ings	8,355 67
			Other assets	6,743 67
Supplies—Fuel	\$36 85		Total assets	\$69,595 23
Pumping station supplies			Debentures or bonds current..	\$51,776 87
Filtration supplies, pumping	715 98		Bank overdraft	
Other supplies	106 06		Municipal overdraft	
		\$858 89	Total liabilities	\$51,776 87
For repairs and renewals		\$673 90	Less Sinking fund	33,934 25
Interest on bonds or loans ...		2,150 00	Net debt	\$17,842 62
Total cost of production..	\$4,105 37			

WATER WORKS, MUNICIPALITY OF ESSEX.

Plant installed, 1891.			From permits tapping mains	
Gravity or pumping system. Pumping from artesian wells.			From other sources	
Number of gallons pumped per year, 50,000,000.			Total income	\$2,901 55
Total daily capacity of pumps, 985,920 gals.			Less operating expenses	\$2,858 18
Average daily consumption, 82,000.			Surplus for year	\$43 37
Cost of production for 1,000 gallons, .05.6.			Operating expenses:	
Population of municipality, 1,297.			Salaries of officers, superintendents, clerks, etc.	\$145 54
			Office supplies and expenses, fireman	205 00
			Insurance	
			Legal expenses and damages	
			Other expenses, pumping engineer	490 00
			Wages	\$840 54
Reservoirs			Supplies—Fuel	\$380 00
Cost of mains			Pumping station supplies	54 27
Cost of service pipes			Filtration supplies	
Cost of hydrants		\$33,000 00	Other supplies	300 00
Cost of real estate and buildings			For repairs and re- newals	
Other assets			Interest on bonds or loans	1,283 37
Total assets	\$33,000 00		Total cost of production .	\$2,858 18
Debentures or bonds current..	\$16,413 36			
Bank overdraft				
Municipal overdraft				
Total liabilities	\$16,413 36			
Gross earnings:				
From sale of water	\$2,901 55			
By meter				
By contract				
From sale of meters				

WATER WORKS, MUNICIPALITY OF EXETER.

Plant installed, 1911.			Average daily consumption. Not given.	
Gravity or pumping system. Pumping.			Cost of production for 1,000 gallons. Not given.	
Number of gallons pumped per year, 1,460,000,			Population of municipallty, 1,479.	
Total daily capacity of pumps, 864,000.				

WATER WORKS, MUNICIPALITY OF EXETER.—Continued.

Gross earnings:	
From sale of water	\$562 00
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	
Total income	\$562 00
Less operating expenses	250 06
Surplus for year	\$312 00
Operation expenses:	
Salaries of officers, superintendents, clerks, etc.	This plant is operated for fire protection only.
Office supplies and expenses	
Insurance	
Legal expenses and damages	
Other expenses	
Wages	

Supplies—Fuel	
Pumping station supplies.	
Filtration supplies	
Other supplies	
For repairs and renewals ..	
Interest on bonds or loans..	
Total cost of production	

Capital Expenditure.

Reservoirs	\$23,234 19
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings	
Other assets	

Total assets \$23,234 19

Debentures or bonds current..	\$22,000 00
Bank overdraft	
Municipal overdraft	

Total liabilities \$22,000 00

WATER WORKS, MUNICIPALITY OF FORT FRANCES.

Plant installed, 1907-1908.
Gravity or pumping system. Pumping.
Number of gallons pumped per year,
21,900,000.
Total daily capacity of pumps, 1,440,000.
Average daily consumption, 60,000 gals.
Cost of production for 1,000 gallons,
29c.
Population of municipality, 2,000.

By contract	
From sale of meters	
From permits tapping mains	
From other sources	1,460 00

Total income	\$6,875 09
Less operating expenses	6,436 36

Surplus for year \$438 73

Capital Expenditure.

Reservoirs	\$8,576 13
Cost of mains	46,856 25
Cost of service pipes	7,351 02
Cost of hydrants	3,708 98
Cost of real estate and buildings	8,234 21
Other assets	7,749 06

Total assets \$82,475 65

Debentures or bonds current.	\$66,601 42
Bank overdraft	
Municipal overdraft	6,897 10
Due general fund	8,977 13

Total liabilities \$82,475 65

Gross earnings	\$5,415 09
From sale of water	
By meter	

Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$700 00
Office supplies and expenses	1 50
Insurance	
Legal expenses and damages	
Other expenses	379 32
Wages	
	\$1,080 82

Supplies—Fuel	\$889 61
Pumping station supplies...	
Filtration supplies	
Other supplies	221 32
For repairs and renewals	
Interest on bonds or loans...	4,244 61

Total cost of production.. \$6,436 36

WATER WORKS, MUNICIPALITY OF FORT WILLIAM.

Plant installed, 1898.
gravity or pumping system. Gravity.
Number of gallons pumped per year.
None.
Total daily capacity of pumps. None.

Average daily consumption, 2,600,000 gals.
Cost of production for 1,000 gallons.
.0732.
Population of municipality, 23,000.

WATER WORKS, MUNICIPALITY OF FORT WILLIAM.—Continued.

Gross earnings:	
From sale of water	\$58,423 00
By meter, discounts	4,907 35
	<u>\$53,515 65</u>
Earnings municipal service	14,925 00
From sale of meters	.....
From permits tapping mains	.....
From other sources	.....
	<u>Total income</u>
	\$68,140 65
Less operating expenses	69,528 76
	<u>Deficiency for year</u>
	\$1,088 11
Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	.....
Office supplies and expenses	.....
Insurance	.....
Legal expenses and damages	.....
Other expenses	.....
Wages	.....
	<u>\$21,708 42</u>
	<u>\$21,708 42</u>
Supplies—Fuel	
Pumping station supplies	.....
Filtration supplies	.....

Other supplies	.....
For repairs and renewals	.....
Interest on bonds and loans	.....
	\$57,623 44
Less levy	9,803 10
	<u>\$47,820 34</u>
Total cost of production	\$69,528 76

Capital Expenditure.

Reservoirs	.....
Cost of mains	.....
Cost of service pipes	.....
Cost of hydrants	.....
Cost of real estate and buildings	.....
Other assets	.....
	<u>\$870,474 08</u>
Total assets	\$870,474 08
Debentures or bonds current	\$877,432 57
Bank overdraft	.....
Municipal overdraft	.....
	<u>Total liabilities</u>
	\$877,432 57
Sinking fund	79,324 22
	<u>Net debt</u>
	\$798,108 35

WATER WORKS, MUNICIPALITY OF GALT.

Plant installed, 1891.	
Gravity or pumping system. Pumping.	
Number of gallons pumped per year,	344,064,021.
Total daily capacity of pumps, 2,250,000.	
Average daily consumption, 940,000 gals.	
Cost of production for 1,000 gallons, .0457.	
Population of municipality, 10,333.	
Gross earnings:	
From sale of water	.....
By meter	.....
By contract	.....
From sale of meters	.....
From permits tapping mains	.....
From other sources	.....
	<u>\$17,469 84</u>
	<u>Total income</u>
	\$17,469 84
Less operating expenses	15,715 39
	<u>Surplus for year</u>
	\$1,754 45
Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$3,016 89
Office supplies and expenses	150 00
Insurance	37 70
Legal expenses and damages	48 85
Other expenses	.....
Wages	563 40
	<u>\$3,816 84</u>

Supplies—Fuel	\$3,707 78
Pumping station supplies	240 41
Filtration supplies	.....
	<u>\$3,948 19</u>
Other supplies	635 36
For repairs and renewals	.....
Interest on bonds or loans	7,315 00
	<u>Total cost of production</u>
	\$15,715 39

The town allows com. for fire protections	\$9,746 84
which brings surplus up to	11,501 29

Capital Expenditure.

Reservoirs	\$10,000 00
Cost of mains	179,445 33
Cost of service pipes	.....
Cost of hydrants	9,938 83
Cost of real estate and buildings	15,354 00
Other assets	8,205 26
	<u>Total assets</u>
	\$222,943 42
Debentures or bonds current	\$196,609 25
Bank overdraft	3,965 96
Municipal overdraft	.....
	<u>Total liabilities</u>
	\$200,575 21

WATER WORKS, MUNICIPALITY OF GEORGETOWN.

Plant installed, 1891.
 Gravity or pumping system. Gravity.
 Number of gallons pumped per year. No record.
 Total daily capacity of pumps. No record.
 Average daily consumption. No record.
 Cost of production for 1,000 gallons. No record.
 Population of municipality, 1,743.

Gross earnings:

From sale of water	}	\$3,031 11
By meter		
By contract		
From sale of meters		
From permits tapping mains		
From other sources		
Total income		\$3,031 11
Less operating expenses		1,700 00
Surplus for year		\$1,331 11

Operating expenses:

Salaries of officers, superintendents, clerks, etc.	\$100 00
Office supplies and expenses	
Insurance	
Legal expenses and	

damages	
Other expenses	
Wages	25 00
	\$125 00

Supplies—Fuel	
Pumping station supplies ..	
Filtration supplies	
Other supplies	
For repairs and renewals	\$25 00
Interest on bonds or loans ..	1,550 00

Total cost of production..	\$1,700 00
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Capital Expenditure.

Reservoirs	}	\$44,500 00
Cost of mains		
Cost of service pipes		
Cost of hydrants		
Cost of real estate and buildings		
Other assets		

Total assets	\$44,500 00
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Debentures or bonds current..	\$28,600 00
Bank overdraft	
Municipal overdraft	

Total liabilities	\$28,600 00
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WATER WORKS, MUNICIPALITY OF HAMILTON.

Plant installed, 1857.
 Gravity or pumping system. Pumping and gravity.
 Number of gallons pumped per year, 2,930,477,595.
 Total daily capacity of pumps, 25,000,000.
 Average daily consumption, 8,000,000.
 Cost of production for 1,000 gallons, .042.
 Population of municipality, 90,000.

Gross earnings:

From sale of water	}	\$260,672 53
By meter		
By contract		
From sale of meters		
From permits tapping mains		
From other sources		

Total income	\$260,672 53
Less operating expenses	146,830 86

Surplus for year	\$113,841 72
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Operating expenses:

Salaries of officers, superintendents, clerks, etc.	\$7,300 09
Office supplies and expenses	668 04
Insurance	758 83
Legal expenses and damages	
Other expenses	1,403 95

Wages	24,894 39
	\$35,025 30

Supplies—Fuel and power	\$23,345 49
Pumping station supplies	6,619 79
Filtration supplies	
Other supplies	
	\$29,965 28

For repairs and renewals	3,969 30
Interest on bonds or loans ...	77,870 98

Total cost of production..	\$146,830 86
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Capital Expenditure.

Reservoirs	}	\$2,767,000 00
Cost of mains		
Cost of service pipes		
Cost of hydrants		
Cost of real estate and buildings		
Other assets		

Total assets	\$2,767,000 00
Debentures or bonds current	\$1,457,423 00
Bank overdraft	
Municipal overdraft	

Total liabilities	\$1,457,423 00
Sinking fund	193,678 00
	\$1,263,745 00

WATER WORKS, MUNICIPALITY OF HANOVER.

Plant installed, 1901.
 Gravity or pumping system. Pumping.
 Number of gallons pumped per year. No record.
 Total daily capacity of pumps. Not given.
 Average daily consumption. Not given.
 Cost of production for 1,000 gallons. Not given.
 Population of municipality, 2,860.

Gross earnings:
 From sale of water }
 By meter } \$417 00
 By contract }
 From sale of meters
 From permits tapping mains.. 1,067 04
 From other sources 6 31
 Total income \$1,490 35
 Less operating expenses 2,885 23
 Deficit for year \$1,394 88

Operating expenses:
 Salaries of officers, superintendents, clerks, etc. \$456 25
 Office supplies and expenses 41 50
 Insurance 42 00
 Legal expenses and damages

Other expenses, installations, etc. .. 581 23
 Wages 158 44
 \$1,279 42
 Supplies—Fuel \$25 28
 Pumping station supplies 170 64
 Filtration supplies.
 Other supplies
 \$195 92
 For repairs and renewals 276 77
 Interest on bonds or loans... 1,133 12
 Total cost of production. \$2,885 23

Capital Expenditure.

Reservoirs } \$32,183 00
 Cost of mains }
 Cost of service pipes since 1909 757 76
 Cost of hydrants
 Cost of real estate and buildings
 Other assets, fire apparatus.. 975 00
 Total assets \$33,915 76
 Debentures or bonds current. \$25,885 76
 Bank overdraft
 Municipal overdraft
 Total liabilities \$25,885 76

WATER WORKS, MUNICIPALITY OF KINCARDINE.

Plant installed, 1889.
 Acquired by town, 1894.
 Gravity or pumping system. Pumping.
 Number of gallons pumped per year, 106,000,000.
 Total daily capacity of pumps, 1,154,880.
 Average daily consumption, 290,000 gals.
 Cost of production for 1,000 gallons, .036.
 Population of municipality, 2,631.

Gross earnings:
 From sale of water
 By meter \$160 30
 By contract 2,797 74
 From hydrants and town service 2,470 84
 From permits tapping mains
 From other sources 198 97
 Total income \$5,627 85
 Less operating expenses 3,808 88
 Surplus for year \$1,818 97

Operating expenses:
 Salaries of officers, superintendents, clerks, etc. \$757 50
 Office supplies and expenses
 Insurance 48 20
 Legal expenses and damages

Other expenses 74 26
 Wages 283 33
 \$1,163 29
 Supplies—Fuel \$1,078 37
 Pumping station supplies 70 40
 Filtration supplies.
 Other supplies 283 89
 \$1,432 66
 For repairs and renewals \$66 68
 Interest on bonds or loans 1,146 25
 \$1,212 93
 Total cost of production.. \$3,808 88

Capital Expenditure.

Reservoirs }
 Cost of mains } \$47,361 21
 Cost of service pipes }
 Cost of hydrants }
 Cost of real estate and buildings }
 Other assets 367 59
 Total assets \$47,728 80
 Debentures or bonds current.. \$25,527 84
 Bank overdraft
 Municipal overdraft and other debts 88 67
 Total liabilities \$25,616 51

WATER WORKS, MUNICIPALITY OF KINGSVILLE.

Plant installed, 1894.
Gravity or pumping system. Pumping.
Number of gallons pumped per year,
25,000,000.
Total daily capacity of pumps. Not
given.
Average daily consumption, 68,000 gals.
Cost of production for 1,000 gallons, .17.
Population of municipality, 1,745.
Gross earnings:

From sale of water	
By meter	\$175 14
By contract	1,819 72
From sale of meters	
From permits tapping mains	
From other sources	

Total income	\$1,994 86
Less operating expenses	\$4,396 87

Surplus for year	\$2,402 01
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Operating expenses:

Salaries of officers, superintendents, clerks, etc.	
Office supplies and expenses	
Insurance	\$40 00
Legal expenses and damages	
Other expenses	217 60
Wages	600 00
	<u>\$857 60</u>

Supplies—Fuel	883 55
Pumping station supplies	222 65
Filtration supplies .	.....
Other supplies	132 40
	<u>\$1,238 60</u>

For repairs and re- newals	\$1,388 71
Interest on bonds or loans	911 96
	<u>2,300 67</u>

Total cost of production..	\$4,396 87
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Capital Expenditure.

Reservoirs	
Cost of mains	
Cost of service pipes	} \$22,000 00
Cost of hydrants	
Cost of real estate and build- ings	10,000 00
Other assets	

Total assets	\$32,000 00
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Debentures or bonds current..	\$17,245 70
Bank overdraft	
Municipal overdraft	

Total liabilities	\$17,245 70
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WATER WORKS, MUNICIPALITY OF KINGSTON.

Plant installed, 1850.
Acquired by city, 1887.
Gravity or pumping system. Pumping.
Number of gallons pumped per year,
895,245,370.
Total daily capacity of pumps, 7,000,000.
Average daily consumption, 2,450,000.
Cost of production for 1,000 gallons,
.0394.

Population of municipality, 18,900.

Gross earnings:

From sale of water	
By meter	\$5,181 84
By contract	37,637 06
From sale of meters	
From permits tapping mains	
From other sources	558 10

Total income	\$43,377 00
Less operating expenses, \$26,461.43; Debentures paid, \$8,800.00	35,261 43

Surplus for year	\$8,115 57
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Operating expenses:

Salaries of officers, superintendents, clerks, etc.	\$5,352 46
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Office supplies and expenses	547 53
Insurance	
Legal expenses and damages	43 50
Other expenses	217 66
Wages	2,863 91
	<u>\$9,066 06</u>

Supplies—Fuel	\$3,647 59
Pumping station supplies	503 95
Filtration supplies .	.....
Other supplies	448 89
	<u>\$4,600 43</u>

For repairs and re- newals	\$2,415 93
Temporary suction pipe	1,593 01
Interest on bonds or loans	8,846 00
	<u>\$12,854 94</u>

Total cost of production.	\$26,461 43
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Capital Expenditure.

Reservoirs, engines and boilers	\$17,520 15
Water tower	13,000 00

WATER WORKS, MUNICIPALITY OF KINGSTON.—Continued.

Cost of mains	} \$235,809 42	Other assets	10,713 31
Cost of service pipes		Total assets	\$330,234 93
Cost of hydrants		Debentures or bonds current..	\$191,100 00
Suction pipe	15,900 31	Bank overdraft	3,030 00
Cost of real estate and build- ings	26,109 37	Other debts	5 78
Cash	11,182 37	Municipal overdraft	
		Total liabilities	\$194,135 78

WATER WORKS, MUNICIPALITY OF LONDON.

CITY OF LONDON.		Other expenses ..	4,899 46
Plant installed, 1878.		Wages	17,169 44
Gravity or pumping system.	Gravity		\$31,752 30
and pumping system.			
Number of gallons pumped per year, 1,414,000,000.		Supplies—Fuel	\$3,137 98
Total daily capacity of pumps, 3,000,000 gals.		Pumping station supplies	3,700 04
Average daily consumption, 3,873,000 gals.		Filtration supplies ..	11,931 30
Cost of production for 1,000 gallons, .06S.		Other supplies	1,043 78
Population of municipality, 47,000.			\$19,813 10
Gross earnings:		For repairs and renewals....	
From sale of water	} \$128,018 96	Total cost of production..	\$51,565 40
By meter		Interest on capital	44,936 16
By contract			
From sale of meters.....		Total cost of operation ..	\$96,501 56
From permits tapping mains	} 1,531 96		
From other sources		Capital Expenditure.	
Total income	\$129,550 92	Reservoirs	
Less operating expenses	96,501 56	Cost of mains	} \$980,564 72
Surplus for year	\$33,048 56	Cost of service pipes.....	
Operating expenses. \$8,481 93		Cost of hydrants	
Salaries of officers, superintendents, clerks, etc.....		Cost of real estate and build- ings	91,058 02
Office supplies and expenses	\$40 44	Other assets	51,781 40
Insurance	308 33	Total assets	\$1,123,404 14
Legal expenses and damages	52 70	City of London, capital account	\$1,056,438 10
		Bank overdraft	
		Municipal over- draft	\$50,883 36
		Other liabilities ..	16,082 68
			66,966 04
		Total liabilities	\$1,123,404 14

WATER WORKS, MUNICIPALITY OF MERRITTON.

Plant installed, 1888-1889.		From sale of meters	
Gravity or pumping system.	Gravity	From permits tapping mains	105 00
system.		From other sources	376 61
Number of gallons pumped per year. No record.		Total income	\$6,198 10
Total daily capacity of pumps. No record.		Less operating expenses	5,936 30
Average daily consumption. No record.		Surplus for year	\$261 80
Cost of production for 1,000 gallons. No record.		Operating expenses:	
Population of municipality, 1,776.		Salaries of officers, superintendents, clerks, etc.	\$635 00
Gross earnings:		Office supplies and expenses	25 39
From sale of water	\$4,716 49		
By meter			
By contract, hydrant rentals 1,000 00			

WATER WORKS, MUNICIPALITY OF MERRITON.—Continued.

Insurance	
Legal expenses and damages	
Other expenses, rentals	91 00
Wages	434 97
	<u>\$1,186 36</u>
Supplies—Fuel	
Pumping station supplies	
Filtration supplies	
Other supplies	
For repairs and renewals	\$449 94
Interest on bonds or loans....	4,300 00
	<u>\$5,936 30</u>

<i>Capital Expenditure.</i>	
Reservoirs	\$16,000 00
Cost of mains	56,876 32
Cost of service pipes	6,715 40
Cost of hydrants	3,300 00
Cost of real estate and buildings	500 00
Other assets	4,331 80
	<u>\$87,723 52</u>
Total assets	
Debentures or bonds current .	\$23,050 49
Bank overdraft	
Municipal overdraft	
	<u>\$23,050 49</u>
Total liabilities	

WATER WORKS, MUNICIPALITY OF MIDLAND.

Plant installed, 1901-1902.	
Gravity or pumping system. Pumping.	
Number of gallons pumped per year. No record.	
Total daily capacity of pumps. No record.	
Average daily consumption. No record.	
Cost of production for 1,000 gallons. No record.	
Population of municipality, 4,663.	

Legal expenses and damages	
Other expenses	
Wages, reservoir ..	54 55
	<u>\$2,752 85</u>
Supplies—Fuel	
Pumping station supplies	\$236 03
Filtration supplies .	
Other supplies	390 58
	<u>\$626 61</u>
For repairs and renewals	136 83
Interest on bonds or loans ..	2,786 44
	<u>\$6,302 73</u>
Total cost of production..	

Gross earnings:	
From sale of water	\$11,371 72
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	
	<u>\$11,371 72</u>
Total income	
Less operating expenses, \$6,302.73; additional expenses, \$2,441.33	\$9,744 06
	<u>\$1,627 66</u>
Surplus for year	
Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$2,300 48
Office supplies and expenses	191 56
Insurance	206 26

<i>Capital Expenditure.</i>	
Reservoirs	\$3,360 56
Cost of mains	68,262 50
Cost of service pipes	2,061 43
Cost of hydrants, meters	102 75
Cost of real estate and buildings	9,357 89
Other assets	13,252 49
	<u>\$96,397 62</u>
Total assets	
Debentures or bonds current .	\$68,397 51
Bank overdraft	
Municipal overdraft	
	<u>\$68,397 51</u>
Total liabilities	

WATER WORKS, MUNICIPALITY OF MILTON.

Plant installed, 1887.	
Gravity or pumping system. Gravity.	
Number of gallons pumped per year. None.	
Total daily capacity of pumps. None.	
Average daily consumption. Not given.	
Cost of production for 1,000 gallons. Not given.	
Population of municipality, 1,800.	

By meter	
By contract	
From hydrant rentals	630 00
From permits tapping mains	
From other sources	
	<u>\$1,830 00</u>
Total income	
Less operating expenses	1,355 80
	<u>\$474 20</u>
Surplus for year	

Gross earnings:	
From sale of water	\$1,200 00

WATER WORKS, MUNICIPALITY OF MILTON.—Continued.

Operating expenses:

Salaries of officers, superintendents, clerks, etc..	
Office supplies and expenses	
Insurance	
Legal expenses and damages	
Other expenses	\$500 00
Wages	

Supplies—Fuel

Pumping station supplies.

Filtration supplies

Other supplies

For repairs and renewals..

Interest on bonds or loans,
\$21,395 4% \$55 80

Total cost of production... \$1,355 80

Capital Expenditure.

Reservoirs	
Cost of mains	
Cost of service pipes	
Cost of hydrants	\$33,445 00
Cost of real estate and buildings	
Other assets	

Total assets \$33,445 00

Debentures or bonds current. \$21,395 00

Bank overdraft

Municipal overdraft

Total liabilities \$21,395 00

WATER WORKS, MUNICIPALITY OF MOUNT FOREST.

Plant installed, 1898.

Gravity or pumping station. Pumping.

Number of gallons pumped per year,
44,000,000.Total daily capacity of pumps, 576,000
gals.

Average daily consumption, 120,000 gals.

Cost of production for 1,000 gals. Not
given.

Population of municipality, 2,000.

Gross earnings:

From sale of water	\$2,707 60
By meter	
By contract, hydrants ..	1,050 00
From sale of meters	
From permits tapping mains	
From other sources	210 00

Total income \$3,967 60

Less operating expenses 1,999 83

Surplus for year \$1,967 77

Supplies—Fuel

Pumping station supplies.

Filtration supplies

Other supplies

For repairs and renewals...

Interest on bonds or loans,
\$26,400 4½%, estimated.... 1,188 00

Total cost of production.... \$1,999 83

Capital Expenditure.

Reservoirs	
Cost of mains	
Cost of service pipes	
Cost of hydrants	\$34,500 00
Cost of real estate and buildings	
Other assets	

Total assets \$34,500 00

Debentures or bonds current. \$26,400 00

Bank overdraft

Municipal overdraft

Total liabilities \$26,400 00

Operating expenses:

Salaries of officers, superintendents, clerks, etc..	
Office supplies and expenses	
Insurance	
Legal expenses and damages	
Other expenses	\$811 83
Wages	

WATER WORKS, MUNICIPALITY OF MORRISBURG.

Plant installed, 1887.

Gravity or pumping system. Pumping.

Number of gallons pumped per year.
Not given.Total daily capacity of pumps. Not
given.

Average daily consumption. Not given.

Cost of production for 1,000 gallons. Not
given.

Population of municipality, 1,750.

WATER WORKS, MUNICIPALITY OF MORRISBURG.—Continued.

Gross earnings:	
From sale of water	\$3,414 34
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	2,479 69

Total income	\$5,894 03
Less operating expenses	2,922 15

Surplus for year	\$2,971 88
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Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$312 00
Office supplies and expenses	
Insurance	419 44
Legal expenses and damages	
Other expenses	100 44
Wages	408 97
	<u>\$1,240 85</u>

Supplies—Fuel ..	
Pumping station supplies...	\$70 00
Filtration supplies	
Other supplies	
For repairs and renewals....	
Interest on bonds or loans and debentures paid	1,611 30
Total cost of production...	<u>\$2,922 15</u>

Capital Expenditure.

Reservoirs ..	}	\$25,000 00
Cost of mains		
Cost of service pipes		
Cost of hydrants		
Cost of real estate and build- ings ..		
Other assets		
Total assets		<u>\$25,000 00</u>
Debentures or bonds current.		\$25,000 00
Bank overdraft		
Municipal overdraft		
Total liabilities		<u>\$25,000 00</u>

WATER WORKS, MUNICIPALITY OF NEWMARKET.

Plant installed, 1889.	
Gravity or pumping system. Pumping.	
Number of gallons pumped per year, 69,000,000.	
Total daily capacity of pumps. Not given.	
Average daily consumption, 190,000 gals.	
Cost of production for 1,000 gals., .043.	
Population of municipality, 3,316.	

Gross earnings:	
From sale of water	\$2,690 49
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	

Total income	\$2,690 49
Less operating expenses	3,006 00

Deficiency for year	\$315 51
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Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$50 00
Office supplies and expenses	135 00
Insurance	
Legal expenses and damages	

Other expenses....	95 00
Wages ..	700 00
	<u>\$980 00</u>
Supplies—Fuel ..	800 00
Pumping station supplies....	
Filtration supplies	
Other supplies	
For repairs and renewals....	790 00
Interest on bonds or loans, estimated ..	436 00
Total cost of production...	<u>\$3,006 00</u>

Capital Expenditure.

Reservoirs ..	\$3,300 00
Cost of mains	23,000 00
Cost of service pipes	
Cost of hydrants	3,550 00
Cost of real estate and build- ings ..	5,584 85
Other assets	18,475 00
Total assets	<u>\$53,909 85</u>
Debentures or bonds	\$9,701 70
Bank overdraft	
Municipal overdraft	
Total liabilities	<u>\$9,701 70</u>

WATER WORKS, MUNICIPALITY OF NIAGARA.

Plant installed, 1891.	
Gravity or pumping system. Pumping.	

Number of gallons pumped per year.	
No record.	

WATER WORKS, MUNICIPALITY OF NIAGARA.—Continued.

Total daily capacity of pumps. No record.
Average daily consumption. No record.
Cost of production for 1,000 gallons. No record.

Population of municipality, 1,750.

Gross earnings:

From sale of water \$2,430 00
By meter
By contract
From sale of meters
From permits tapping mains
From other sources

Total income \$2,430 00
Less operating expenses 3,791 89

Deficiency for year \$1,361 89

Operating expenses:

Salaries of officers, superintendents, clerks, etc. \$431 21
Office supplies and expenses
Insurance
Legal expenses and damages
Other expenses
Wages
\$431 21

Supplies—Fuel \$374 49
Pumping station supplies, electricity 650 26
1,024 75

Filtration supplies..
Other supplies \$113 63
For repairs and renewals 273 23
Interest on bonds or loans 1,949 07
\$2,335 93

Total cost of production.. \$3,791 89

Capital Expenditure.

Reservoirs
Cost of mains
Cost of service pipes
Cost of hydrants
Cost of real estate and buildings
Other assets
\$40,620 66

Total assets \$40,620 66

Debentures or bonds current. \$13,849 07
Bank overdraft
Municipal overdraft

Total liabilities \$13,849 07

WATER WORKS, MUNICIPALITY OF NIAGARA FALLS.

Plant installed, 1884.
Gravity or pumping system. Pumping.
Number of gallons pumped per year, 1,095,000,000.

Total daily capacity of pumps, 7,500,000 gals.

Average daily consumption, 3,000,000 gals.

Cost of production for 1,000 gals., .0089.
Population of municipality, 10,036.

Capital Expenditure.

Reservoirs \$217,380 00
Cost of mains
Cost of service pipes
Cost of hydrants
Cost of real estate and buildings
Other assets, cash 736 14

Total assets \$218,116 14
Debentures or bonds current. \$101,458 22
Bank overdraft
Municipal overdraft

Total liabilities \$101,458 22

Gross earnings:

From sale of water \$26,746 24
By meter
By contract
From sale of meters.....

From permits tapping mains
From other sources

Total income \$26,746 24
Less operating expenses 20,470 87

Surplus \$6,275 37

Operating expenses:

Salaries of officers, superintendents, clerks etc.
Office supplies and expenses
Insurance
Legal expenses and damages
Other expenses

Supplies—Fuel
Pumping station supplies \$4,091 75
Filtration supplies. 72 39
\$4,164 14

Other supplies 4,492 11
For repairs and renewals
Interest on bonds or loans \$5,264 86
Debentures paid ... 6,549 76
\$11,814 62

Total cost of production... \$20,470 87

WATER WORKS. MUNICIPALITY OF NORTH BAY.

Plant installed, 1891.
 Gravity or pumping system. Pumping.
 Number of gallons pumped per year.
 No data.
 Total daily capacity of pumps, 2,828,000
 gals.
 Average daily consumption. Not given.
 Cost of production for 1,000 gallons. Not
 given.
 Population of municipality, 8,534.

Gross earnings:

From sale of water \$17,655 34
 By meter
 By contract
 From sale of meters
 From permits tapping mains
 From other sources

Total income \$17,655 34
 Less operating expenses 17,314 48

Surplus for year \$340 86

Operating expenses:

Salaries of officers,
 superintendents,
 clerks, etc. \$400 00
 Office supplies and
 expenses 100 00
 Insurance 175 00
 Legal expenses and
 damages

Other expenses
 Wages 1,657 37
 \$2,332 37

Supplies — Fuel and
 power \$5,719 03
 Pumping station
 supplies } 3,763 81
 Filtration supplies }
 Other supplies .. }
 9,482 84

For repairs and re-
 newals 1,812 36
 Interest on bonds or
 loans 3,686 91
 5,499 27

Total cost of production... \$17,314 48

Capital Expenditure.

Reservoirs \$24,718 70
 Cost of mains
 Cost of service pipes
 Cost of hydrants
 Cost of real estate and build-
 ings 150,387 25
 Other assets 1,024 30
 Total assets \$176,130 25

Debentures or bonds current. \$172,457 82
 Bank overdraft
 Municipal overdraft

Total liabilities \$172,457 82

WATER WORKS, MUNICIPALITY OF NORTH TORONTO.

Plant installed, 1890.
 Gravity or pumping system. Pumping.
 Number of gallons pumped per year,
 58,700,000.
 Total daily capacity of pumps, 960,000
 gals.
 Average daily consumption, 133,000 gals.
 Cost of production for 1,000 gals. 17.9.
 Population of municipality, 6,393.

Gross earnings:

From sale of water \$6,254 96
 By meter
 By contract
 From sale of meters
 From permits tapping mains
 From other sources

Total income \$6,254 96
 Less operating expenses 10,550 77

Deficit for year \$4,295 81

Operating expenses:

Salaries of officers,
 superintendents,
 clerks etc. \$2,200 00
 Office supplies and
 expenses 50 00
 Insurance 25 00
 Legal expenses and
 damages

Other expenses 15 00
 Wages 80 00
 \$2,370 00

Supplies—Fuel 1,238 14
 Pumping station
 supplies 126 55

Other supplies
 For repairs and re-
 newals
 Interest on bonds or
 loans, 4½% \$109,-
 463.37, estimated .. \$4,925 85
 Interest on bonds or
 loans, 5% \$37,804.66,
 estimated 1,890 23
 6,816 08

Total cost of production... \$10,550 77

Capital Expenditure.

Reservoirs
 Cost of mains
 Cost of service pipes
 Cost of hydrants
 Cost of real estate and build-
 ings } Not given.
 Other assets }
 Total assets

WATER WORKS, MUNICIPALITY OF NORTH TORONTO.—Continued.

Debentures or bonds current. \$109,463 37
Bank overdraft 37,804 66

Municipal overdraft
Total liabilities \$147,268 03

WATER WORKS, MUNICIPALITY OF ORANGEVILLE.

Plant installed, 1896.
Gravity or pumping system. Gravity,
springs.
Number of gallons pumped per year.
No record kept.
Total daily capacity of pumps. None.
Average daily consumption. Not given.
Cost of production for 1,000 gallons. Not
given.
Population of municipality, 2,321.

Gross earnings:
From sale of water \$3,294 15
By meter
By contract
From sale of meters
From permits tapping mains
From other sources
Total income \$3,294 15
Less operating expenses 2,612 76
Surplus for year \$681 39

Operating expenses:
Salaries of officers,
superintendents,
clerks, etc. \$501 00
Office supplies and
expenses
Insurance
Legal expenses and
damages
.....

Other expenses
Wages 776 64
Supplies—Fuel
Pumping station
supplies
Filtration supplies.. . . .
Other supplies
For repairs and re-
newals
Interest on bonds or
loans 1,335 12
Total cost of production ... \$2,612 76

Capital Expenditure.

Reservoirs
Cost of mains
Cost of service pipes
Cost of hydrants
Cost of real estate and build-
ings 1,000 00
Other assets
Total assets \$52,483 63

Debentures or bonds current..
Bank overdraft
Municipal overdraft
Total liabilities \$28,241 77

WATER WORKS, MUNICIPALITY OF OSHAWA.

Plant installed, 1904-1905.
Gravity or pumping system. Pumping.
Number of gallons pumped per year,
117,178,922.
Total daily capacity of pumps, 2,880,000
gals.
Average daily consumption, 321,000 gals.
Cost of production for 1,000 gallons,
.0743.
Population of municipality, 7,417.

Gross earnings:
From sale of water
By meter 8,018 65
By contract 2,748 35
From sale of meters
From permits tapping mains
From other sources 1,943 61
Total income \$12,710 61
Less operating expenses 8,702 67
Surplus for year \$4,007 94

Operating expenses:
Salaries of officers,
superintendents,
clerks, etc. \$349 98
Office supplies and
expenses 61 67
Insurance 50 00
Legal expenses and
damages
Other expenses 66 85
Wages 1,231 86
Supplies—Fuel \$1,646 66
Pumping station
supplies 154 80
Filtration supplies
Other supplies 47 50
For repairs and renewals 129 89
Interest on bonds or loans 4,963 46
Total cost of production.. \$8,702 67

WATER WORKS, MUNICIPALITY OF OSHAWA.—Continued.

Capital Expenditure.

Reservoirs, etc.	\$21,611 82
Cost of mains	57,420 57
Cost of service pipes and conduits	19,992 29
Cost of hydrants and meters ..	10,269 31
Cost of real estate and buildings	11,667 00

Other assets 33,232 48

Total assets \$154,193 47

Debentures or bonds current. \$119,935 00

Bank overdraft

Municipal overdraft

Total liabilities \$119,935 00

WATER WORKS, MUNICIPALITY OF OTTAWA.

Plant installed, 1874.
 Gravity or pumping system. Direct pressure pumping.
 Number of gallons pumped per year, 5,822,544,200.
 Total daily capacity of pumps, 32,000,000.
 Average daily consumption, 15,900,000.
 Cost of production for 1,000 gallons, .0389.
 Population of municipality, 90,520.

Gross earnings:	
From sale of water	\$218,503 13
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	1,289 31

Total income	\$219,792 44
Less operating expenses	\$223,474 99
	3,346 07
	226,821 06

Deficiency for year \$7,028 62

Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$19,622 63
Office supplies and expenses	1,107 15
Insurance	150 51
Legal expenses and damages	883 01

Other expenses 1,985 13

Wages 10,600 76

334,349 19

Supplies—Fuel

Pumping station

supplies \$800 00

Water Commission. 5,886 47

Other supplies

For repairs and re-

newals 67,871 01

74,557 48

Interest on bonds or loans .. 114,568 32

Total cost of production \$223,474 99

Capital Expenditure.

Reservoirs	
Cost of mains	\$1,213,592 60
Cost of service pipes	319,512 28
Cost of hydrants	88,725 00
Cost of real estate and buildings	204,805 62
Other assets	929,664 50

Total assets \$2,756,300 00

Debentures or bonds current \$1,284,096 17

Bank overdraft 7,028 62

Municipal overdraft

Total liabilities \$1,291,124 79

Sinking fund 295,031 92

Net debt \$996,032 87

WATER WORKS, MUNICIPALITY OF OWEN SOUND.

Plant acquired by municipality, 1890.
 Gravity or pumping system. Gravity.
 Number of gallons used per year, 236,000,000.
 Total daily capacity of pumps. None.
 Average daily consumption, 647,000.
 Cost of production for 1,000 gallons, .0659.
 Population of municipality, 12,000.

Gross earnings:	
From sale of water	\$18,110 66
By meter	
By contract	
Hydrant rentals	5,500 00
From sale of meters	
From permits tapping mains	

From other sources, interest 2,632 52

Total income \$26,243 18

Less operating expenses 15,465 55

Surplus for year \$10,777 63

Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$2,155 57
Office supplies and expenses	161 90
Insurance	
Legal expenses and damages	

WATER WORKS, MUNICIPALITY OF OWEN SOUND.—Continued.

Other expenses	
Wages	1,968 18
	\$4,285 65
Supplies—Fuel	
Pumping station supplies	
Filtration supplies	
Other supplies	
For repairs and renewals	\$541 06
Interest on bonds or loans ...	10,638 84
Total cost of production..	\$15,465 55

Capital Expenditure.

Plant account, 1st January, 1911,
\$260,658.89.

Reservoirs	2,907 63
Cost of mains	5,462 45

Cost of service pipes	1,225 00
Cost of hydrants	132 25
Cost of real estate and build- ings, filter beds	10,486 78
Cash and accounts receivable.	2,328 49
Other assets, sinking fund ...	62,513 49
Total assets	\$345,714 98
Debentures or bonds current.	\$256,503 99
Bank overdraft	873 30
Municipal overdraft	

Total liabilities\$257,377 29

WATER WORKS, MUNICIPALITY OF OAKVILLE.

Plant installed, 1908.	
Gravity or pumping system. Pumping.	
Number of gallons pumped per year. No record.	
Total daily capacity of pumps. No record.	
Average daily consumption. No record.	
Cost of production for 1,000 gallons. No record.	
Population of municipality, 2,500.	

Gross earnings	
From sale of water	\$5,698 28
By meter	
By contract	
From sale of meters	
From permits tapping mains	855 91
From other sources	
Total income	\$6,554 19
Less operating expenses	6,230 65
Surplus for year	\$323 54

Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$2,081 69
Office supplies and expenses	329 04
Insurance	

Legal expenses and damages	
Other expenses	593 98
Wages	
	\$3,004 71

Supplies—Fuel	
Pumping station supplies ..	
Filtration supplies	\$413 44
Other supplies	
For repairs and renewals	
Interest on bonds or loans ...	2,812 50

Total cost of production . \$6,230 65

Capital Expenditure.

Reservoirs	\$8,161 76
Cost of mains	27,632 09
Cost of service pipes	16,926 53
Cost of hydrants	2,100 00
Cost of real estate and build- ings	5,336 91
Other assets	9,404 88

Total assets\$69,562 17

Debentures or bonds current .	\$69,350 28
Bank overdraft	
Municipal overdraft	2,831 86

Total liabilities\$69,350 28

WATER WORKS, MUNICIPALITY OF PARIS.

Plant installed, 1882.	
Gravity or pumping system. Pumping.	
Number of gallons pumped per year, 100,000,000.	
Total daily capacity of pumps. Not given.	
Average daily consumption, 273,000 gals.	
Cost of production for 1,000 gals., .0241.	
Population of municipality, 4,300.	
Gross earnings:	
From sale of water	\$5,921 50

By meter	
By contract	
From hydrant rentals	1,000 00
From permits tapping mains	
From other sources	

Total income	\$6,921 50
Less operating expenses	2,415 61
Surplus for year	\$4,505 89

WATER WORKS, MUNICIPALITY OF PARIS.—Continued.

Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$104 00
Office supplies and expenses	
Insurance	
Legal expenses and damages	
Other expenses, pumping	1,500 00
Wages	160 69
	\$1,764 69
Supplies—Fuel	
Pumping station supplies ..	45 92
Filtration supplies	
Other supplies	200 00
For repairs and renewals....	
Interest on bonds or loans, 4½% \$9,000	405 00
Total cost of production ...	\$2,415 61

Capital Expenditure.

Reservoirs	}	\$88,145 00
Cost of mains		
Cost of service pipes		
Cost of hydrants		
Cost of real estate and buildings		
Other assets		
Total assets		\$88,145 00
Debentures or bonds current		\$9,000 00
Bank overdraft		
Municipal overdraft		
Total liabilities		\$9,000 00
Less sinking fund		563 78
		\$8,436 22

WATER WORKS, MUNICIPALITY OF PETERBORO

Plant installed, 1882; acquired, 1909.	
Gravity or pumping system. Direct pumping.	
Number of gallons pumped per year, 750,375,734.	
Total daily capacity of pumps, 10,500,000 gals.	
Average daily consumption, 2,060,000 gals.	
Cost of production for 1,000 gallons, .0458.	
Population of municipality, 19,300.	
Gross earnings:	
From sale of water	\$40,997 50
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	3,787 45
Total income	\$44,764 95
Less operating expenses	34,358 28
Surplus for year	\$10,406 67

Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$5,520 00
Office supplies and expenses	1,108 22

Insurance	
Legal expenses and damages	
Other expenses ...	1,315 52
Wages	4,702 75
	\$12,646 49
Supplies—Fuel	
Pumping station supplies...	2,395 11
Filtration supplies	
Other supplies	522 43
For repairs and renewals	
Interest on bonds or loans..	18,794 25
Total cost of production...	\$34,358 28

Capital Expenditure.

Reservoirs	
Cost of mains and hydrants...	\$215,573 85
Cost of service pipes	46,802 72
Cost of hydrants	
Cost of real estate and buildings	182,493 18
Other assets	85,279 74
Total assets	\$530,149 49
Debentures or bonds current...	\$462,000 00
Bank overdraft	27,563 79
Municipal overdraft	
Total liabilities	\$489,563 79

WATER WORKS, MUNICIPALITY OF PETROLEA.

Plant installed, 1896.	
Gravity or pumping system. Pumping.	
Number of gallons pumped per year, 276,939,907.	
Total daily capacity of pumps, 2,000,000 gals.	

Average daily consumption, 760,000 gals.	
Cost of production for 1,000 gals., .0566.	
Population of municipality, 4,500.	
Gross earnings:	
From sale of water	
By meter	\$1,575 00

WATER WORKS, MUNICIPALITY OF PETROLEA.—Continued.

By contract	14,564 57	For repairs and re-	
From sale of meters	43 30	newals	\$84 12
From permits tapping mains	15 50	Interest on bonds or	
From other sources	276 35	loans	9,946 78
			10,030 90
Total income	\$16,474 72	Total cost of production....	\$15,376 33
Less operating expenses	15,376 23		
Surplus for year	\$1,098 39		
		Capital Expenditure.	
Operating expenses:		Reservoirs	
Salaries of officers,		Cost of mains	\$101,000 00
superintendents,		Cost of service pipes	50,171 65
clerks, etc.	\$640 00	Cost of hydrants	5,500 00
Office supplies and		Cost of real estate and build-	
expenses	20 50	ings	6,200 00
Insurance	12 75	Other assets	27,558 68
Legal expenses and			
damages		Total assets	\$190,430 33
Other expenses	379 24	Debentures or bonds current.	\$105,068 92
Wages	1,200 00	Bank overdraft	
		Municipal overdraft	
Supplies—Fuel	\$2,627 45		
Pumping station		Total liabilities	\$105,068 92
supplies	353 44		
Filtration supplies..			
Other supplies	112 05		
	3,092 94		

WATER WORKS, MUNICIPALITY OF PICTON.

Plant installed, 1889-1890.		damages	
Gravity or pumping system. Pumping.		Other expenses	252 85
Number of gallons pumped per year,		Wages	906 38
146,000,000.			\$2,887 85
Total daily capacity of pumps, 1,750,000		Supplies—Fuel	\$1,322 65
gals.		Pumping station supplies ..	
Average daily consumption, 400,000 gals.		Filtration supplies	
Cost of production for 1,000 gals., .0272.		Other supplies	
Population of municipality, 3,456.		For repairs and renewals ...	
		Interest on bonds or loans...	
Gross earnings:		Total cost of production...	\$4,210 50
From sale of water			
By meter		Capital Expenditure.	
By contract		Reservoirs	
From sale of meters	\$3,681 31	Cost of mains	
From permits tapping		Cost of service pipes	
mains		Cost of hydrants	\$30,000 00
From other sources		Cost of real estate and build-	
		ings	
Total income	\$3,681 31	Other assets	
Less operating expenses	4,210 50		
Deficiency for year	\$529 19	Total assets	\$30,000 00
		Debentures or bonds current	
Operating expenses:		Bank overdraft	
Salaries of officers,		Municipal overdraft	
superintendents,			
clerks, etc.	\$1,300 00	Total liabilities	
Office supplies and			
expenses	428 62		
Insurance			
Legal expenses and			

WATER WORKS, MUNICIPALITY OF PORT ARTHUR.

Plant installed, 1903-1904.
Gravity or pumping system. Pumping system.
Number of gallons pumped per year, 551,725,440 gals.
Total daily capacity of pumps, 2,304,000 gals.
Average daily consumption, 1,511,000 gals.
Cost of production for 1,000 gallons, .07.9.
Population of municipality, 15,500.

Gross earnings:		
From sale of water	}	\$43,177 47
By meter		
By contract		
From sale of meters		
From permits tapping mains		
From other sources		
Total income		\$43,177 47
Less operating expenses		43,595 63
Deficiency for year		\$418 16
Operating expenses:		
Salaries of officers, superintendents, clerks, etc.		\$870 00
Office supplies and expenses.		400 00
Insurance ...	}	Maintenance 6,045 28
Legal expenses		
and damages		
Other expenses		
Wages		
		\$7,315 28

Supplies—Fuel, power purchased	
Pumping station supplies	\$3,906 25
Filtration supplies	
Other supplies	
For repairs and renewals	
Interest on bonds or loans ...	\$32,374 10
Total cost of production .	\$43,595 63

Capital Expenditure.

Reservoirs	
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings	
Other assets	
Total assets	
Debentures or bonds current .	\$792,775 00
Bank overdraft, less sinking fund	39,403 41
Municipal overdraft	
Total liabilities, net ...	\$753,371 59

WATER WORKS, MUNICIPALITY OF VILLAGE OF PORT COLBORNE.

Plant installed, 1898.
Gravity or pumping system. Pumping system.
Number of gallons pumped per year, 36,500,000 gals.
Total daily capacity of pumps. Not given.
Average daily consumption, 100,000 gals.
Cost of production for 1,000 gallons. Not given.
Population of municipality, 1,900.

Gross earnings:	
From sale of water	\$2,183 15
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	
Total income	\$2,183 15
Less operating expenses	2,003 86
Surplus for year	\$179 19
Operating expenses:	
Salaries of officers, superintendents, clerks, etc. .	} \$750 00
Office supplies and expenses	
Insurance	
Legal expenses and damages	
Other expenses	
Wages	

Supplies—Fuel	
Pumping station supplies ..	
Filtration supplies	
Other supplies	
For repairs and renewals	
Interest on bonds or loans ..	\$1,253 86
Total cost of production .	\$2,003 86

Capital Expenditure.

Reservoirs... } and other items	\$21,200 00
Cost of mains }	
Cost of service pipes, pumping equipment	\$7,000 00
Cost of hydrants ...	1,500 00
Cost of real estate and buildings	2,800 00
Other assets	
	11,300 00
Total assets	\$32,500 00
Debentures or bonds current .	\$12,391 21
Bank overdraft	
Municipal overdraft	
Total liabilities	\$12,391 21

WATER WORKS, MUNICIPALITY OF PORT ELGIN.

Plant installed, 1906-1907.	Other expenses .....	.....	
Gravity or pumping system. Pumping.	Wages	286 00	
Number of gallons pumped per year. Not metered.			\$306 00
Total daily capacity of pumps. Not given.	Supplies—Fuel	\$500 00	
Average daily consumption. Not given.	Pumping station supplies	46 44	
Cost of production for 1,000 gallons. Not given.	Filtration supplies	183 00	
Population of municipality, 1,200.	Other supplies		\$729 44
Gross earnings:	For repairs and re-		
From sale of water	newals	\$25 70	
By meter	Interest on bonds or		
By contract	loans	\$1,796 48	1,822 18
From sale of meters			
From permits tapping	Total cost of production..		\$2,857 62
mains			
From other sources	Capital Expenditure.		
	Reservoirs		
Total income	Cost of mains		
Less operating expenses	Cost of service pipes		
	Cost of hydrants		\$42,000 00
Deficiency for year	Cost of real estate and		
	buildings		
Operating expenses:	Other assets		
Salaries of officers,	Total assets		\$42,000 00
superintendents,	Debentures or bonds current.		\$38,800 58
clerks, etc.	Bank overdraft		
Office supplies and	Municipal overdraft		
expenses			
Insurance, collecting	Total liabilities		\$38,800 58
Legal expenses and			
damages			

WATER WORKS, MUNICIPALITY OF RENFREW.

Plant installed, 1897-1898.	Supplies—Fuel, light		
Gravity or pumping system. Pumping.	and power	\$4,374 07	
Number of gallons pumped per year.	Pumping station		
17,000,000.	supplies		
Total daily capacity of pumps, 2,000,000.	Filtration supplies		
Average daily consumption, 46,000 gals.	Other supplies	416 48	
Cost of production for 1,000 gallons.			\$4,790 55
.0698.	For repairs and re-		
Population of municipality, 4,004.	newals	\$518 47	
Gross earnings:	Interest on bonds or		
From sale of water	loans	2,483 47	
By meter	Debenture paid	2,118 62	
By contract			\$5,120 56
From sale of meters	Total cost of production..		\$11,836 49
From permits tapping mains			
From other sources	Capital Expenditure.		
	Reservoirs		\$60,011 10
Total income	Cost of mains		12,646 98
Less operating expenses	Cost of service pipes		
	Cost of hydrants		7,321 00
Surplus for year	Cost of real estate and build-		
Operating expenses:	ings		
Salaries of officers, super-	Other assets		11,911 93
intendents, clerks, etc. .	Total assees		\$91,891 01
Office supplies and expenses	Debentures or bonds current..		\$71,661 00
Insurance	Bank overdraft		
Legal expenses and damages	Municipal overdraft		
Other expenses			
Wages	Total liabilities		\$71,661 00

WATER WORKS, MUNICIPALITY OF SARNIA.

Plant installed, 1875.
Gravity or pumping system. Pumping.
Number of gallons pumped per year,
945,566,200.
Total daily capacity of pumps, 10,250,000
gals.
Average daily consumption, 2,590,000 gals.
Cost of production for 1,000 gals., .0132.
Population of municipality, 9,936.

Gross earnings:

From sale of water	}	\$23,377 75
By meter		
By contract		
From sale of meters		
From permits tapping mains		792 19
From other sources		
Total income		\$24,169 94
Less operating expenses		12,484 79
Surplus for year		\$11,685 15

Operating Expenses:

Salaries of officers, superintendents, clerks, etc.	\$2,770 00
Office supplies and expenses	15 85
Insurance	72 00
Legal expenses and damages	

Other expenses	
Wages	868 28
Supplies—Fuel	
Pumping station supplies	} \$3,610 85
Filtration supplies	
Other supplies	1,111 27
Light	210 00
	4,932 12
For repairs and renewals	
Interest on bonds or loans ..	3,826 54
Total cost of production...	\$12,484 79

Capital Expenditure.

Reservoirs	}	\$225,000 00
Cost of mains		
Cost of service pipes		
Cost of hydrants		
Cost of real estate and build- ings		
Other assets		
Total assets		\$225,000 00
Debentures or bonds current	\$107,558 36	
Bank overdraft		
Municipal overdraft		
Total liabilities		\$107,558 36

WATER WORKS, MUNICIPALITY OF ST. MARY'S.

Plant installed, 1899.
Gravity or pumping system. Pumping.
Number of gallons pumped per year.
Not given.
Total daily capacity of pumps, 500,000
gals.
Average daily consumption. Not given.
Cost of production for 1,000 gals. Not
given.
Population of municipality, 3,555.

Gross earnings:

From sale of water	\$5,865 35
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	
Total income	\$5,865 35
Less operating expenses.....	

Surplus or deficiency for year.

Operating expenses:

The details of operating expenses not obtainable, being bulked with those of Electric Lighting Department.

Capital Expenditure.

Reservoirs, wells, etc.	\$5,935 00	
Cost of mains	}	40,459 66
Cost of service pipes		
Cost of hydrants		
Cost of real estate and build- ings		3,050 00
Other assets, boilers, etc.		4,740 00
Other items		10,435 97
Total assets		\$64,620 63
Debentures or bonds current.	\$32,926 88	
Bank overdraft		
Municipal overdraft		
Total liabilities		\$32,926 88

WATER WORKS, MUNICIPALITY OF SEAFORTH.

Plant installed, 1879.
Gravity or pumping system. Pumping.
Number of gallons pumped per year.
Not given.
Total daily capacity of pumps. Not
given.

Average daily consumption. Not given.
Cost of production for 1,000 gals. Not
given.
Population of municipality, 2,200.

WATER WORKS, MUNICIPALITY OF SEAFORTH.—Continued.

Gross earnings:	
From sale of water	\$759 42
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From hydrants	650 00
From other sources	

Total income	\$1,409 42
Less operating expenses	1,249 39

Deficiency for year	\$160 03
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Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	
Office supplies and expenses	
Insurance	
Legal expenses and damages	
Other expenses	
Wages ..	\$423 60
	\$423 60

Supplies—Fuel	
Pumping station supplies	\$433 90
Filtration supplies.	101 16
	535 06

Other supplies	
For repairs and renewals ...	
Interest on bonds or loans...	290 73

Total cost of production ...	\$1,249 39
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Capital Expenditure.

Reservoirs	\$14,500 00
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings	
Other assets	

Total assets	\$14,500 00
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Debentures or bonds current.	\$3,500 00
Bank overdraft	
Municipal overdraft	

Total liabilities	\$3,500 00
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WATER WORKS, MUNICIPALITY OF SHELBURNE.

Plant installed, 1889.
Gravity or pumping system. Pumping.
Number of gallons pumped per year.
No record.
Total daily capacity of pumps. No record.
Average daily consumption. No record.
Cost of production for 1,000 gallons. No record.
Population of municipality, 950.

Gross earnings:	
From sale of water	\$1,200 50
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	15 00

Total income	\$1,215 50
Less operating expenses	1,892 15

Deficiency for year	\$676 65
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Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$150 00
Office supplies and expenses	
Insurance	
Legal expenses and damages ..	

Other expenses	
Wages ..	
Supplies—Fuel ..	250 00
Pumping station supplies ..	
Filtration supplies.	
Other supplies	
For repairs and renewals ..	
Interest on bonds or loans	75 00
	\$1,892 15

Total cost of production.	\$1,417 15
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Capital Expenditure.

Reservoirs	\$32,000 00
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings ..	
Other assets	

Total assets	\$32,000 00
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Debentures or bonds current.	\$10,248 93
Bank overdraft	
Municipal overdraft	

Total liabilities	\$10,248 93
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WATER WORKS, MUNICIPALITY OF SIMCOE.

Plant installed, 1907.
Gravity or pumping system. Pumping.
Number of gallons pumped per year,
40,060,000.
Total daily capacity of pumps, 1,440,000
gals.
Average daily consumption, 110,000 gals.
Cost of production for 1,000 gallons,
.157.
Population of municipality, 3,740.

Gross earnings:	
From sale of water	
By meter	\$3,631 67
By contract	2,900 00
From sale of meters	1,269 63
From permits tapping mains	
From other sources	
Total income	\$7,801 30
Less operating expenses	6,315 20
Surplus for year	\$1,486 10

Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$400 00
Office supplies and expenses	28 65
Insurance	20 00
Legal expenses and damages	

WATER WORKS, MUNICIPALITY OF SMITH'S FALLS.

Plant acquired in 1900.
Gravity or pumping system. Pumping.
Number of gallons pumped per year,
273,750,000.
Total daily capacity of pumps, 2,250,000.
Average daily consumption, 750,000.
Cost of production for 1,000 gallons. Not
given.
Population of municipality, 6,586.

Gross earnings:	
From sale of water	\$12,663 88
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	10,048 95
Total income	\$22,712 83
Less operating expenses	15,095 33
Surplus for year	\$7,617 50
Int. on debentures estimated..	6,183 11
Surplus	\$1,434 49

Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$751 09
Office supplies and expenses	131 05

Other expenses	54 63
Wages	605 04
	\$1,108 32
Supplies—Fuel	\$265 15
Pumping station supplies	63 10
Filtration supplies .	
Other supplies	7 02
	\$335 27
For repairs and renewals ...	148 49
Interest on bonds or loans ...	4,723 12
Total cost of production..	\$6,315 20

Capital Expenditure.

Reservoirs	\$11,868 90
Cost of mains	37,792 61
Cost of service pipes	2,627 16
Cost of hydrants	3,600 00
Cost of real estate and build- ings	9,167 00
Other assets	15,963 51
	\$81,019 18
Debentures or bonds current..	\$71,673 72
Bank overdraft	1,137 08
Municipal overdraft	8,208 38
Total liabilities	\$81,019 18

Insurance	34 20
Legal expenses and damages	
Other expenses	106 84
Wages	1,845 39
	\$2,868 57
Supplies—Fuel	\$2,451 68
Pumping station supplies	503 62
Filtration supplies .	
Other supplies	
	\$2,955 30
For repairs and renewals	9,271 46
Interest on bonds or loans ..	
Total cost of production..	\$15,095 33

Capital Expenditure.

Reservoirs	\$162,000 00
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings	
Other assets	
Total assets	\$162,000 00
Debentures or bonds current..	\$137,402 56
Bank overdraft	
Municipal overdraft	
Total liabilities	\$137,402 56

WATER WORKS, MUNICIPALITY OF STAYNER.

Plant installed, 1898.
 Gravity or pumping system. Gravity.
 Number of gallons pumped per year. No record.
 Total daily capacity of pumps. No record.
 Average daily consumption. No record.
 Cost of production for 1,000 gallons. No record.
 Population of municipality, 1,025.

Gross earnings:

From sale of water	
By meter	
By contract, G.T.R.	\$250 00
From sale of meters	
From permits tapping mains	800 00
From other sources	
Total income	\$1,050 00
Less operating expenses	703 80
Surplus for year	\$346 20

Operating expenses:

Salaries of officers, superintendents, clerks, etc. ...	\$40 00
Office supplies and expenses	
Insurance	
Legal expenses and damages	
Other expenses	
Wages	
	\$40 00

Supplies—Fuel	
Pumping station supplies	
Filtration supplies	
Other supplies	
For repairs and renewals	
Interest on bonds or loans, \$16,845 4%	\$663 80
Total cost of production..	\$703 80

Capital Expenditure.

Reservoirs	} \$25,000 00
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings	
Other assets	
Total assets	\$25,000 00

Debentures or bonds current .	\$16,845 00
Bank overdraft	
Municipal overdraft	
Total liabilities	\$16,845 00

WATER WORKS, MUNICIPALITY OF ST. CATHARINES.

Plant installed, 1878-1879.
 Gravity or pumping system. Gravity.
 Number of gallons pumped per year, 825,000,000.
 Total daily capacity of pumps. None.
 Average daily consumption, 2,260,000 gals.
 Cost of production for 1,000 gallons, .024.
 Population of municipality, 14,000.

Gross earnings:

From sale of water	\$9,523 88
By meter	25,248 76
By contract	265 76
From sale of meters	
From permits tapping mains, hydrant rentals	5,950 00
From other sources	2,574 83
Total income	\$43,563 23
Less operating expenses	19,832 41
Surplus for year	\$23,730 82

Operating expenses:

Salaries of officers, superintendents, clerks, etc.	\$3,219 12
Office supplies and expenses	167 50
Insurance	37 50

Legal expenses and damages	
Other expenses	543 58
Leases, etc.	918 09
	\$4,085 79

Supplies—Fuel	
Pumping station supplies...	
Filtration supplies	
Other supplies	
For repairs and renewals ...	\$1,946 62
Interest on bonds or loans ...	13,800 00
Total cost of production..	\$19,832 41

Capital Expenditure

Reservoirs	} \$650,268 87
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and buildings	
Other assets	
Total assets	\$650,268 87

Debentures or bonds current.	\$525,000 00
Bank overdraft, sinking fund.	78,312 76
Municipal overdraft	
Total liabilities	\$446,678 24

WATER WORKS, MUNICIPALITY OF ST. THOMAS.

Plant installed, 1890-1891.
 Gravity or pumping system. Pumping.
 Number of gallons pumped per year,
 512,766,605.
 Total daily capacity of pumps, 9,000,000
 gals.
 Average daily consumption, 1,404,000
 gals.
 Cost of production for 1,000 gals., .045.
 Population of municipality, 15,740.

Gross earnings:

From sale of water
 By meter \$17,091 38
 By contract 20,913 84
 From sale of meters
 From permits tapping mains
 From other sources 267 65

Total income \$38,272 87
 Less operating expenses 23,088 32
 Surplus for year \$15,184 55

Operating expenses:

Salaries of officers,
 superintendents,
 clerks, etc. \$2,815 00
 Office supplies and
 expenses 795 23
 Insurance
 Legal expenses and
 damages 73 25

Other expenses 281 79
 Wages 6,064 57
 10,029 84
 Supplies—Fuel \$2,822 60
 Pumping station
 supplies 1,627 79
 Filtration supplies..
 Other supplies 2,808 25
 \$7,258 64
 For repairs and renewals ... 618 16
 Interest on bonds or loans... 5,181 68
 Total cost of production... \$23,088 32

Capital Expenditure.

Reservoirs
 Cost of mains
 Cost of service pipes } \$298,596 25
 Cost of hydrants
 Cost of real estate and
 buildings
 Other assets 31,368 54
 Total assets \$329,964 79
 Debentures or bonds current. \$175,244 93
 Petty debts 12 01
 Municipal overdraft
 Total liabilities \$175,256 94

WATER WORKS, MUNICIPALITY OF STRATFORD.

Plant installed, 1883.
 Gravity or pumping system. Pumping
 system.
 Number of gallons pumped per year,
 248,200,000.
 Total daily capacity of pumps, 3,500,000
 gals.
 Average daily consumption, 780,000 gals.
 Cost of production for 1,000 gals., .088
 Population of municipality, 15,076.

Gross earnings \$20,216 53
 From sale of water
 By meter
 By contract 12,354 58
 From city buildings 678 09
 From sprinkling 477 69
 From other sources 2,913 27

Total income \$36,640 16
 Less operating expenses 21,798 89
 Surplus for year \$14,841 17

Operating expenses:

Salaries of officers,
 superintendents,
 clerks, etc. \$3,330 00
 Office supplies and
 expenses 195 15

Insurance 201 92
 Legal expenses and
 damages
 Other expenses
 Wages 1,243 99
 \$4,971 06
 Supplies—Fuel:
 Coal \$3,889 55
 Electricity. 966 67
 Pumping station
 supplies 134 19
 Filtration supplies. 127 16
 Other supplies 289 65
 5,407 22
 For repairs and renewals ... 3,827 97
 Interest on bonds or loans... 7,592 64
 Total cost of production ... \$21,798 89

Capital Expenditure.

Reservoirs
 Cost of mains
 Cost of service pipes } \$134,006 28
 Cost of hydrants
 Cost of real estate and build-
 ings 98,149 86
 Other assets 13,199 59
 Total assets \$245,355 73

WATER WORKS, MUNICIPALITY OF SEAFORTH.—Continued.

Debentures or bonds current.	\$177,306 00
Other debts	480 51
Municipal overdraft	6,308 69
Total liabilities	\$184,095 20

Sinking fund	18,830 99
Net debt	\$165,264 21

WATER WORKS, MUNICIPALITY OF SOUTHAMPTON.

Plant installed, 1901.
 Gravity or pumping system. Pumping.
 Number of gallons pumped per year.
 38,000,000.
 Total daily capacity of pumps, 1,000,000
 gals.
 Average daily consumption, 104,000 gals.
 Cost of production for 1,000 gals., .075.
 Population of municipality: Winter,
 1,700; summer, 2,200.

Gross earnings:	
From sale of water	
By meter	\$94 77
By contract	2,036 49
From sale of meters	
From permits tapping mains	

From other sources	
Total income	\$2,131 26
Less operating expenses	2,877 02

Deficiency for year	\$745 76
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Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$650 00
Office supplies and expenses	17 50
	\$667 50

Insurance	
Legal expenses and damages	
Other expenses	
Wages	
Supplies—Fuel	\$1,013 51
Pumping station supplies	54 07
	1,067 58
Filtration supplies	
Other supplies	78 50
For repairs and renewals ..	
Interest on bonds or loans ..	1,063 44
Total cost of production ...	\$2,877 02

Capital Expenditures.

Reservoirs	
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and build- ings	
Other assets, cash, etc.	3,570 70
Total assets	\$42,933 21
Debentures or bonds current..	\$36,122 83
Bank overdraft	
Municipal overdraft	

Total liabilities	\$36,122 83
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WATER WORKS, MUNICIPALITY OF STOUFFVILLE.

Plant installed, 1897.
 Gravity or pumping system. Gravity.
 Number of gallons pumped per year. No
 record.
 Total daily capacity of pumps. No
 record.
 Average daily consumption. No record.
 Cost of production for 1,000 gallons. No
 record.
 Population of municipality, 1,014.

Gross earnings:	
From sale of water	\$737 16
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	

Total income	\$737 16
Less operating expenses	781 39

Deficiency for year	\$44 23
---------------------------	---------

19 R.M.

Operating expenses:	
Salaries of officers, super- intendents, clerks, etc..	
Office supplies and ex- penses	
Insurance	
Legal expenses and damages	
Other expenses	
Wages	

\$77 83

Supplies—Fuel	
Pumping station supplies ..	
Filtration supplies	
Other supplies	
For repairs and renewals ...	\$703 51
Interest on bonds or loans ..	

Total cost of production..	\$781 32
----------------------------	----------

WATER WORKS, MUNICIPALITY OF STOUFFVILLE.—Continued.

Capital Expenditure.

Reservoirs	}	\$25,000 00
Cost of mains		
Cost of service pipes		
Cost of hydrants		
Cost of real estate and buildings		
Other assets		
Total assets		\$25,000 00

Debentures or bonds current..	\$16,847 00
Bank overdraft	
Municipal overdraft	
Total liabilities	\$16,847 00

WATER WORKS, MUNICIPALITY OF TEESWATER.

Plant installed, 1889.
 Gravity or pumping system. Pumping.
 Number of gallons pumper per year. No record.
 Total daily capacity of pumps. No record.
 Average daily consumption. No record.
 Cost of production for 1,000 gallons. No record.
 Population of municipality, 818.

Gross earnings:	
From sale of water.	This plant is used for protection against fire only, and the cost of maintenance is borne out of the general fund.
By meter	
By contract	
From sale of meters	
From permits tapping mains.....	
From other sources.	
Total income	
Less operating expenses	\$86 86
Deficiency for year	\$86 86

Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	
Office supplies and expenses	
Insurance	\$31 17

Legal expenses and damages	
Other expenses	7 50
Wages	
	\$38 67

Supplies—Fuel	
Pumping station supplies ..	
Filtration supplies	
Other supplies	
For repairs and renewals	
Interest on bonds or loans, \$1,204.75, 4%	48 19
Total cost of production .	\$86 86

Capital Expenditure.

Reservoirs	}	\$15,000 00
Cost of mains		
Cost of service pipes		
Cost of hydrants		
Cost of real estate and buildings		
Other assets		
Total assets		\$15,000 00

Debentures or bonds current .	\$1,204 75
Bank overdraft	
Municipal overdraft	
Total liabilities	\$1,204 75

WATER WORKS, MUNICIPALITY OF TILBURY.

Plant installed, 1888.
 Gravity or pumping system. Pumping.
 Number of gallons pumped per year. 24,280,000.
 Total daily capacity of pumps. Pumping done by Michigan Ry.
 Average daily consumption, 24,280,000.
 Cost of production for 1,000 gallons, .032.
 Population of municipality, 1,456.

Gross earnings:	
From sale of water	\$920 50
By meter	
By contract	
From sale of meters	
From permits tapping mains	4 00

From other sources	
Total income	\$924 50
Less operating expenses	1,178 04
Deficiency for year	\$253 54

Operating expenses:	
Salaries of officers, superintendents, clerks, etc. ..	
Office supplies and expenses	
Insurance	\$31 28
Legal expenses and damages	
Other expenses	
Wages	
Cost of pumping	347 65

WATER WORKS, MUNICIPALITY OF TILBURY.—Continued.

Supplies—Fuel	Cost of service pipes	2,094 41
Pumping station supplies ..	Cost of hydrants	1,075 00
Filtration supplies	Cost of real estate and build-	
Other supplies	ings	50 00
For repairs and renewals	Other assets (appliances) ...	1,200 00
Interest on bonds or loans ..		
	Total assets	\$21,798 65
Total cost of production. \$1,178 04		
Capital Expenditure.		
Reservoirs, pump-house and	Debentures or bonds current..	\$4,513 00
pump	Bank overdraft	
Cost of mains	Municipal overdraft	
	Total liabilities	\$4,513 00
\$2,920 00		
14,459 24		

WATER WORKS, MUNICIPALITY OF TORONTO.

Plant installed, 1841.	Wages	210,200 99
Gravity or pumping system. Pumping.	Supplies—Fuel	\$97,799 97
Number of gallons pumped per year,	Pumping station supplies ..	25,143 18
15,377,990,439.	Filtration supplies	13,202 01
Total daily capacity of pumps, 68,000,000.	Other supplies	
Average daily consumption, 42,131,200.	For repairs and renewals	387,754 00
Cost of production for 1,000 gallons, 5.06.	Interest on bonds or loans ...	
Population of municipality,		
	Total cost of production ..	\$778,592 47
Gross earnings:	Capital Expenditure.	
From sale of water	Reservoirs	\$11,211,527 00
By meter	Cost of mains	
By contract	Cost of service pipes	
From tariff sundries	Cost of hydrants	
From permits tapping mains	Cost of real estate and build-	
City supply	ings	
	Other assets	
Total income	Total assets	\$11,211,527 00
Less operating expenses	Debentures or bonds current ..	\$7,582,020 22
	Other debts	2,317,353 81
Surplus for year	Total liabilities	\$9,899,374 03
\$44,044 76	Sinking fund	1,286,175 94
		\$8,613,198 09
Operating expenses		
Salaries of officers, superin-		
tendents, clerks, etc.		
Office supplies and expenses ..		
Insurance		
Legal expenses and damages ..		
Other expenses		

WATER WORKS, MUNICIPALITY OF WILKINSON.

Plant installed, 1888.	Less operating expenses	\$4,781 60
Gravity or pumping system. Pumping.		
Number of gallons pumped per year,	Surplus for year	\$638 40
324,000,000.		
Total daily capacity of pumps. Not	Operating expenses:	
given.	Salaries of officers,	
Average daily consumption, 890,000 gals.	superintendents,	
Cost of production for 1,000 gals., .0548.	clerks, etc.	\$25 00
Population of municipality, 1,900.	Office supplies and	
Gross earnings	expenses	25 00
From sale of water	Insurance	
By meter	Legal expenses and	
By contract	damages	
From sale of meters	Other expenses ..	
From permits tapping mains ..	Wages	1,050 00
From other sources		\$1,100 00
	Supplies—Fuel ..	2,800 00
Total income		
5,420 00		

WATER WORKS, MUNICIPALITY OF WILKINSON.—Continued.

Pumping station supplies	60 00
Filtration supplies	
Other supplies	124 82
For repairs and renewals....	
Interest on bonds or loans, \$17,419.62, 4%	696 78
Total cost of production ...	\$4,781 60

Capital Expenditure.

Reservoirs	
Cost of mains	
Cost of service pipes	
Cost of hydrants	
Cost of real estate and build- ings	
Other assets	
Total assets	\$50,215 00
Debentures or bonds current.	\$17,419 62
Bank overdraft	
Municipal overdraft	
Total liabilities	\$17,419 62

WATER WORKS, MUNICIPALITY OF WINGHAM.

Plant installed, 1879.	
Gravity or pumping system. Gravity.	
Number of gallons pumped per year.	
No record.	
Total daily capacity of pumps. No record.	
Average daily consumption. No record.	
Cost of production for 1,000 gallons. No record.	
Population of municipality, 2,500.	

Gross earnings:	
From sale of water	\$1,692 74
By meter	
By contract	
From sale of meters	
From permits tapping mains	
From other sources	1,060 98
Total income	\$2,753 72
Less operating expenses	2,560 19
Surplus for year	\$193 53

Operating expenses:	
Salaries of officers, superintendents, clerks, etc.	\$270 00
Office supplies and expenses	
Insurance	
Legal expenses and damages	

Other expenses ...	234 74
Wages	
	\$504 74
Supplies—Fuel	
Pumping station supplies..	
Filtration supplies	
Other supplies	88 28
For repairs and renewals ...	431 72
Interest on bonds or loans, \$34,119.28, 4½%	1,535 45
Total cost of production ...	\$2,560 19

Capital Expenditure.

Reservoirs	\$5,925 00
Cost of mains	20,003 77
Cost of service pipes	7,680 92
Cost of hydrants	
Cost of real estate and build- ings	8,100 00
Other assets, wells	2,940 65
Total assets	\$44,650 34
Debentures or bonds current.	\$34,119 28
Municipal overdraft	2,500 00
Total liabilities	\$36,619 28

WATER WORKS, MUNICIPALITY OF WOODSTOCK.

Plant installed, 1880.	
Gravity or pumping system. Pumping.	
Number of gallons pumped per year, 504,646,431.	
Total daily capacity of pumps, 8,000,000 gals.	
Average daily consumption, 1,380,000 gals.	
Cost of production for 1,000 gals., .027.	
Population of municipality, 10,126.	

Gross earnings:	
From sale of water	
By meter	\$4,869 41
By contract	18,521 24
From sale of meters	
From permits tapping mains	
From other sources	7,177 70
Total income	\$30,568 35

WATER WORKS, MUNICIPALITY OF WOODSTOCK.—Continued.

Less operating expenses 18,615 65

Surplus for year \$11,952 70

Operating expenses:

Salaries of officers,
superintendents,
clerks, etc. \$733 50

Office supplies and
expenses 162 00

Insurance 2 50

Legal expenses and
damages 7 00

Other expenses 2,667 15

Wages \$3,572 15

Supplies—Fuel, electric power \$4,729 49

Pumping station
supplies 604 82

Filtration supplies 1,394 01

Other supplies 8,315 18

For repairs and renewals 3,572 15

Interest on bonds or loans ... \$4,729 49

Total cost of production.... \$18,615 65

WATER WORKS, MUNICIPALITY OF WESTON.

Plant installed, 1910.

Gravity or pumping system. Pumping.

Number of gallons pumped per year,
4,000,000, estimated.

Total daily capacity of pumps. Not
given.

Average daily consumption. Not given.

Cost of production for 1,000 gals. Not
given.

Population of municipality, 2,000.

Gross earnings:

From sale of water \$801 95

By meter 216 00

By contract, sprinkling.. 3,554 71

From sale of meters 3,554 71

From permits tapping mains

From other sources, rental

of hydrants \$4,572 66

Total income 4,460 19

Less operating expenses \$112 47

Surplus for year \$112 47

Operating expenses:

Salaries of officers, super-
intendents, clerks, etc. .

Office supplies and ex-
penses \$1,112 24

Insurance 2 50

Legal expenses and dam-
ages 7 00

Other expenses 2,667 15

Wages \$3,572 15

\$1,112 24

Capital Expenditure.

Original \$25,000 00

Reservoirs 11,146 91

Cost of mains 76,557 89

Cost of service pipes 17,924 88

Cost of hydrants 5,786 08

Cost of real estate and build-
ings 12,613 36

Other assets 140,951 45

Total assets \$289,980 57

Debentures or bonds current. \$193,216 49

Bank overdraft 59,212 71

Municipal overdraft \$193,216 49

Total liabilities 59,212 71

Less sinking fund \$134,003 78

Net debt \$134,003 78

Supplies—Fuel 3,347 95

Pumping station supplies...

Filtration supplies 1,394 01

Other supplies 8,315 18

For repairs and renewals 3,572 15

Interest on bonds or loans .. \$4,729 49

Total cost of production ... \$4,460 19

Capital Expenditure.

Reservoirs \$11,667 45

Cost of mains 39,404 36

Cost of service pipes, pumping
machinery 7,154 90

Cost of hydrants 5,290 94

Cost of real estate and build-
ings 13,699 81

Other assets, filters, meters,
etc. \$77,217 46

Total assets \$77,217 46

Debentures or bonds current. \$71,340 97

Bank overdraft 6,429 38

Municipal overdraft 3,600 00

Total liabilities \$81,370 35

PUBLIC UTILITIES—WATER WORKS.

Tabulated Statement Compiled from Returns of Municipalities for Year Ending 31st December, 1911.

Name of Municipality.	Total Investment.		Debt and other Debts.		Sinking Fund.		Net Debt.		Total Income.		Total Outlay.		Surplus.		Deficit.	Cost of Production.
	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.
Alexandria.....	47,500	00	.....	.....	.....	.....	.....	.....	4,400	00	4,520	00	.....	.....	120	00
Amherstburg.....	79,322	58	.....	.....	.....	.....	44,422	87	8,709	14	8,985	35	.....	.....	276	21
Arnprior.....	73,216	21	.....	.....	.....	.....	54,091	89	3,827	51	4,341	70	.....	.....	514	19
Aylmer.....	130,248	04	.....	.....	.....	.....	116,011	04	12,741	54	10,536	11	2,205	43	.....	16.8
Barrie.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Beausville.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Belleville.....	229,008	27	87,491	67	.....	.....	87,491	67	34,862	60	16,062	57	18,800	03	.....	04.8
Berlin.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Becton.....	47,919	12	32,875	13	.....	.....	32,875	13	4,663	55	2,885	41	1,778	14	.....	08.1
Bracebridge.....	102,380	40	.....	.....	.....	.....	.....	.....	7,300	00	5,242	64	2,057	48	.....	06.2
Brampton.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brantford.....	51,464	67	35,622	00	.....	.....	35,622	00	6,084	46	5,086	44	998	02	.....	.....
Bridgeburg.....	276,341	66	135,656	29	83,640	15	52,016	14	35,672	12	32,680	17	2,991	95	.....	03.1
Brockville.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Campbellville.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chatham.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chapleau.....	73,914	53	37,967	79	.....	.....	37,967	79	14,955	15	13,316	38	1,638	77	.....	03.5
Collingwood.....	146,443	00	97,219	57	.....	.....	97,219	57	16,002	05	10,344	90	5,657	15	.....	01.9
Cornwall.....	22,500	00	20,009	40	.....	.....	20,009	40	540	00	868	64	.....	.....	328	54
Creemore.....	38,000	00	22,510	00	.....	.....	22,510	00	5,273	43	7,002	53	.....	.....	1,729	10
Deseronto.....	69,595	23	51,776	87	33,934	25	17,842	62	3,528	51	4,105	37	.....	.....	576	86
Dundas.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dunnville.....	23,234	19	22,000	00	.....	.....	22,000	00	562	00	250	00	312	00	.....	.....
Exeter.....	33,000	00	16,413	36	.....	.....	16,413	36	2,991	55	2,858	18	43	37	.....	05.6
Essex.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fenelon Falls.....	82,475	65	82,475	65	.....	.....	82,475	65	6,875	09	6,436	36	438	73	.....	29
Fort Frances.....	870,474	08	877,432	57	79,324	22	798,108	35	68,440	65	69,528	76	.....	.....	1,088	11
Fort William.....	222,943	42	200,575	21	.....	.....	200,575	21	17,469	84	15,715	39	1,754	45	.....	07.3
Galt.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gananoque.....	44,500	00	28,600	00	.....	.....	28,600	00	3,031	11	1,700	00	1,331	11	.....	.....
Georgetown.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Goderich.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grimsby.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Guelph.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gravenhurst.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hamilton.....	276,700	00	1,457,423	00	193,768	00	1,263,745	00	260,672	58	146,830	86	113,841	72	.....	.....

PUBLIC UTILITIES—WATER WORKS.—Concluded.
 Tabulated Statement Compiled from Returns of Municipalities for Year Ending 31st December, 1911.

Name of Municipality.	Total Investment.		Debt and Other Debts.		Sinking Fund.		Net Debt.		Total Income.		Total Outlay.		Surplus.		Deficit.		Cost of Production.	
	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.
Petrolia.....	190,430	33	105,068	92			105,068	92	16,474	72	15,376	33	1,098	39			05.6	
Pictou.....	30,000	00							3,681	31	4,210	50	529	19			02.7	
Port Arthur.....	448,953	00	792,775	00	39,403	41	753,371	59	43,177	47	43,595	63			418	16	07.9	
Port Colborne.....	32,500	00	12,391	21			12,391	21	2,183	15	2,003	86	179	19				
Port Elgin.....	42,000	00	38,800	58			38,800	58	672	64	2,857	62			2,184	98		
Port Hope.....																		
Port Perry.....																		
Preston.....																		
Preston.....	91,891	01	71,661	00			71,661	00	11,857	65	11,836	49	21	16			06.9	
Renfrew.....	225,000	00	107,558	36			107,558	36	24,169	94	12,484	50	11,085	15			01.3	
Sarnia.....	14,500	00	3,500	00			3,500	00	1,409	92	1,249	39	160	03				
Seaford.....	32,000	00	10,248	93			10,248	93	1,215	50	1,892	15			676	65		
Shelburne.....	81,019	18	81,019	18			81,019	18	7,801	30	6,315	20	1,486	10			15.7	
Simcoe.....	162,000	00	137,402	56			137,402	56	22,712	83	21,278	44	1,434	39				
Smith's Falls.....	42,933	21	36,122	83			36,122	83	2,131	26	2,877	02			745	76		
Southampton.....									1,050	00	703	80	346	20			07.5	
Stayner.....	25,000	00	16,845	00			16,845	00	43,563	23	19,832	41	23,730	82			02.4	
St. Catharines.....	650,268	87	525,000	00	78,312	76	446,678	24	38,272	87	23,088	32	15,184	55			04.5	
St. Thomas.....	329,964	79	175,256	94			175,256	94	5,865	35								
St. Mary's.....	64,620	63	32,926	88			32,926	88										
Steeleton.....																		
Stratford.....	245,355	73	184,095	20	18,830	99	165,264	21	36,640	00	21,798	89	14,841	17			08.8	
Stouffville.....	25,000	00	16,847	00			16,847	00	737	16	781	39			44	23		
Strathroy.....																		
Sturgeon Falls.....																		
Teeswater.....	15,000	00	1,204	75			1,204	75			86	86						
Thessalon.....																		
Tilbury.....	21,798	65	4,513	00			4,513	00	924	50	1,178	04			253	54	03.2	
Toronto.....	11,211,527	00	9,899,374	03	1,286,175	94	8,613,198	09	822,637	23	778,592	47	44,044	76			05.6	
Walkerton.....																		
Woodstock.....	289,980	57	193,216	49	59,212	71	134,003	78	30,568	35	18,615	65	11,952	70			03.7	
Wingham.....	44,650	34	36,619	28			36,619	28	2,753	72	2,560	19	193	53				
Warton.....	50,215	00	17,419	62			17,419	62	5,420	00	4,781	60	638	40			05.4	
Waterloo.....																		
Weston.....	77,217	46	81,370	35			81,370	35	4,572	66	4,460	19	112	47				

ELECTRIC RAILWAYS.

Capital, Liabilities, and Assets, June 30th, 1912.

Name of Railway.	Capital subscribed.		Capital paid up.		Bonds outstanding.	Other liabilities.		Total liabilities.	Total assets.
	\$	c.	\$	c.		\$	c.		
Barton Incline Railway.....									
Berlin & Waterloo.....	17,400 00				121,465 00	7,356 27		128,821 37	148,080 73
Berlin & Bridgeport, now Berlin & Northern.			17,400 00		2,400 00	14,321 31		34,121 31	35,075 28
Brantford Street Railway.....	No report.								
Bruce Mines & Algoma Railway.....									
Cornwall Street.....	200,000 00		200,000 00						
Galt, Preston & Hespeler.....	31,310 00		31,310 00		541,852 47	1,843 57		201,843 57	238,562 50
Grand Valley.....	No report.					96,327 71		669,490 18	976,241 56
Guelph Radial.....	200,000 00		169,500 00		147,275 19			147,275 19	172,478 88
Hamilton & Dundas.....	100,000 00		100,000 00		100,000 00	1,614 38		201,614 38	255,965 71
Hamilton Street.....	914,000 00		914,000 00		500,000 00	93,547 51		1,507,547 51	1,756,135 85
Hamilton, Grimsby & Beamsville.....	235,000 00		235,000 00		150,000 00	16,096 76		401,096 76	440,170 98
Hamilton Radial.....	111,150 00		111,150 00		1,160,000 00			1,271,150 00	1,271,150 00
Huntsville & Lake of Bays.....	27,800 00		27,800 00					27,800 00	27,800 00
International Transit.....	150,000 00		150,000 00		280,000 00	50,679 80		480,679 80	598,747 24
Irondale, Bincroft & Ottawa.....									
Kingston, Portsmouth & Cataragui.....	83,100 00		83,100 00		100,000 00			100,000 00	100,000 00
London Street.....	750,000 00		556,000 00		577,000 00	62,473 82		1,195,473 82	1,265,193 65
Mt. McKay & Kakabeka.....									
Midland Terminal, Mid. & Simcoe, formerly M.T.	250,000 00		250,000 00						
Niagara Falls & Park River.....						56,750 10		306,750 10	296,184 20
Ottawa Street.....	1,876,900 00		1,876,900 00		600,000 00			600,000 00	
Peterboro' Radial.....	100,000 00		100,000 00		500,000 00			2,376,900 00	2,376,900 00
Port Arthur & Fort William.....					112,668 00			212,668 00	
Sandwich, Windsor & Amherstburg.....	500,000 00		297,000 00		932,855 44	179,141 47		1,111,996 91	1,111,996 91
Sarnia Street.....	90,000 00		90,000 00		490,000 00	180,421 92		967,421 92	1,092,289 62
St. Thomas Street.....					80,000 00			170,000 00	
Toronto Street.....	10,999,176 55		10,999,176 55		56,290 24	3,598 95		59,889 19	75,261 19
Toronto Suburban.....	3,000,000 00		1,500,000 00		3,829,633 33	4,573,985 34		19,402,795 22	19,402,795 22
Toronto & York Radial.....	2,000,000 00		2,000,000 00		2,628,000 00	28,524 55		4,156,524 55	4,156,524 55
Thurlow Railway.....	50,000 00		25,000 00		1,640,000 00	1,034,274 99		4,674,274 99	4,894,077 79
Woodsstock, Thames Valley & Ingersoll.....								25,000 00	63,212 81
Windsor & Tecumseh Electric Railway.....	Leased to Sand		wich & Amherst		burg Railway.				
	21,685,836 55		19,733,336 55		13,549,439 67	6,400,958 55		39,431,134 77	40,967,512 67

ELECTRIC RAILWAYS.

Analysis of Operating Expenses for Year ending June 30th, 1912.

Name of Railway.	Car miles	Mainten- ance of way and buildings.	Cost of motive power.	Mainten- ance of cars and equipment	General operating expenses.	Charges on income, including interest.	Total expenses.	Cost of op- eration per car mile.
Berlin & Waterloo	129,463	\$ 1,912 13 c. 559 11	\$ 7,582 50 c. 1,989 72	\$ 3,971 03 c.	\$ 18,457 31 c. 3,617 89	\$ 13,175 05 c. 935 35	\$ 45,098 02 c. 7,102 07	\$ 34.9 c. 22.2
Berlin & Bridgeport, now Berlin & Northern	No report.							
Brantford Street	196,999	1,886 88	1,730 85	3,657 40	16,673 19		23,948 32	12.2
Cornwall Street	289,642	14,399 93	22,637 76	5,861 58	61,372 60		110,226 57	38.
Galt, Preston & Hespler	402,386	No report.						
Grand Valley Railway	242,200	1,813 14	5,499 09	6,794 64		5,954 70		
Guelph Radial Railway	1,400	350 66		200 00				
Huntsville & Lake of Bays	133,119	11,380 45	4,700 56	1,409 46	24,687 62		48,274 77	36.3
Hamilton & Dundas	1,817,946	19,238 02	53,462 86	35,932 84	188,805 66	93,120 88	390,560 26	21.5
Hamilton Street Railway	364,900	18,310 46	14,580 16	19,300 04	57,172 91	27,212 73	136,576 30	37.4
Hamilton, Grimsby & Beamsville	535,951	Not given.					163,406 38	30.5
Hamilton Radial Railway	291,829	2,836 33	8,531 19	3,965 08	26,097 06	63,795 55	105,225 21	36.
International Transit	199,680	3,714 14	3,784 76	3,924 60	19,292 82	5,920 00	36,636 32	18.4
Kingston, Portsmouth & Catarqui	1,452,351	26,338 13	41,258 27	22,774 37	104,266 46	67,463 07	262,100 30	18.
London Street Railway	316,683	24,099 96	5,943 79	2,889 70	47,453 89	33,500 38	113,887 72	36.
Niagara Falls Park & River	4,366,284						567,350 38	13.
Ottawa Street	256,182						39,276 67	15.3
Peterboro Radial	948,900	15,754 76	25,808 37	19,317 10	61,515 86	42,450 02	164,846 11	17.3
Port Arthur & Fort William	923,257	2,649 28	14,327 61	12,455 65	62,001 10	35,760 66	147,194 30	15.9
Sandwich, Windsor & Amherstburg		4,013 09		1,386 42	24,466 64	2,895 75	32,761 90	
Midland Terminal	143,990						37,598 70	26.1
Sarnia Street	262,920	2,661 14	4,285 13	3,010 45	16,442 27		26,398 99	10.
St. Thomas Street	18,543,297	125,851 70	473,220 91	419,995 24	1,684,679 20	2,098,055 14	4,801,802 19	25.9
Toronto Street	248,675	9,734 39	6,000 00	7,228 17	28,607 21	6,384 95	57,954 72	23.7
Toronto and Suburban	1,176,376	30,531 95	65,619 12	43,683 24	153,306 24	122,123 99	415,264 54	37.
Toronto & York Radial		5,017 19	3,736 53	1,385 23	5,943 17		16,082 12	
Thurlow Railway	Leased and	operated by	Sandwich,	Windsor &	Amherstburg	Railway.		
Windsor & Tecumseh Electric Railway								
Woodstock, Thames Valley & Ingersoll	33,276,430	343,052 84	764,699 18	619,142 24	2,623,983 19	2,632,533 05	7,791,042 63	

ELECTRIC RAILWAYS.

Comparative summary of length of road, car mileage, number of passengers carried, for years ending 30th June, 1911, and 30th June, 1912.

Name of Railway.	Length of track switches and turn outs.		Car mileage.		Passengers carried.	
	1911	1912	1911	1912	1911	1912
Berlin & Waterloo	4.00	4.05	98,992	129,463	774,941	982,750
Berlin & Bridgeport	3.20	No report.	32,000	32,000	145,587	191,992
Brautford Street	6.50	6.05	286,466	196,999	340,677	411,016
Cornwall Street	26.42	26.42	275,769	289,642	1,110,725	1,110,725
Galt, Preston & Hespeler	40.24	40.24	333,417	402,386	1,095,488	1,387,122
Grand Valley	6.33	8.83	192,500	242,200	668,952	929,045
Guelph Radial	1.00	1.00	1,350	1,400	14,000	12,200
Huntsville & Lake of Bays	6.98	6.98	115,434	133,119	595,896	645,059
Hamilton & Dundas	22.29	22.29	1,652,498	1,817,946	10,025,054	12,322,744
Hamilton Street	22.60	22.60	347,054	364,900	622,915	632,341
do Grimsby & Beamsville	33.69	33.69	513,712	535,951	1,442,551	2,289,947
Hamilton Radial	3.90	3.90	314,806	291,829	1,050,540	1,197,225
International Transit	8.00	8.00	199,680	199,680	776,736	856,540
Kingston, Portsmouth & Cataract	33.25	33.25	1,432,828	1,432,351	7,210,642	7,908,572
Niagara Street	24.11	24.11	333,195	316,683	1,331,645	1,339,458
Niagara Falls, Park & River	47.42	44.98	4,171,449	4,366,284	23,716,883	20,891,122
Ottawa Street	5.24	6.51	255,218	256,182	810,124	864,783
Peterboro' Radial	22.33	25.33	654,015	948,990	3,407,918	4,541,011
Port Arthur & Fort William	36.63	36.63	875,040	923,257	3,428,634	3,769,603
Sandwich, Windsor & Amherstburg	4.00	4.00	.....	Freight only.	.....	.....
Midland Terminal	9.25	9.25	143,990	143,990	800,210	878,765
Sarnia Street	7.70	7.50	281,700	262,920	534,562	470,609
St. Thomas Street	110.88	121.68	16,354,871	18,543,297	114,824,464	128,317,403
Toronto Street	10.26	10.26	234,128	248,675	1,309,965	1,402,656
Toronto and Suburban	81.05	82.00	1,118,000	1,176,376	4,136,796	4,532,504
Toronto & York Radial	5.43	5.43	.....	.....	.....	.....
Thurlow Railway .....	.....	.....	.....	.....	.....	.....
Woodstock, Thames Valley & Ingersoll .....	.....	.....	.....	.....	.....	.....
Totals .....	.....	.....	.....	.....	.....	.....

ELECTRIC RAILWAYS.

Gross and Net Earnings for Year ending June 30th, 1912.

Name of Railway.	Receipts from passenger fares.		Receipts from freight.		Receipts from mail service & express.		Receipts from other sources.		Total receipts.		Total expenses.		Surplus.		Deficit.	
	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.
Berlin & Waterloo.....	40,175	25	.....	.....	5,274	82	558	53	46,008	60	45,098	02	910	58	.....	.....
Berlin and Bridgeport, now Berlin and Northern.....	7,679	67	.....	.....	215	57	98	40	7,993	64	7,102	07	891	57	.....	.....
Brantford Street.....	No report.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Corwall Street.....	18,313	94	10,506	82	544	40	2,888	69	32,253	85	23,948	32	8,305	53	.....	.....
Galt, Preston and Hespeler.....	84,507	49	85,511	71	8,598	76	1,069	15	179,687	11	110,226	57	69,460	54	.....	.....
Graud Valley.....	No report.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Guelph Radial.....	35,595	09	1,521	04	.....	.....	1,285	46	38,401	59	35,816	30	2,585	29	.....	.....
Huntsville & Lake of Bays.....	1,729	18	3,810	56	30	00	.....	.....	5,569	74	5,653	47	.....	.....	83	73
Hamilton & Dundas.....	53,819	51	.....	.....	1,104	76	4,367	39	59,291	66	48,274	77	11,016	89	.....	.....
Hamilton Street Railway.....	506,868	88	.....	.....	.....	.....	5,627	40	512,496	28	390,560	26	121,936	02	.....	.....
Hamilton, Grimsby & Beamsville.....	83,775	10	31,126	17	6,836	54	6,711	21	128,449	02	136,576	30	.....	.....	8,127	28
Hamilton Radial.....	173,761	95	.....	.....	.....	.....	.....	.....	173,761	95	163,406	38	10,355	57	.....	.....
International Transit.....	80,942	94	.....	.....	.....	.....	25,068	44	106,011	38	105,225	21	786	17	.....	.....
Kingston, Portsmouth & Cataraqui.....	35,031	97	.....	.....	1,253	11	36,285	08	36,285	08	33,636	32	31,513	85	.....	.....
London Street Railway.....	289,091	16	.....	.....	1,239	98	3,283	01	293,614	15	262,100	30	34,967	93	.....	.....
Niagara Falls Park & River.....	139,659	12	.....	.....	200	10	17,996	43	157,855	65	113,887	72	340,955	04	.....	.....
Ottawa Street Railway.....	908,305	42	.....	.....	.....	.....	.....	.....	908,305	42	567,350	38	342,955	04	.....	.....
Peterboro' Radial.....	39,187	42	.....	.....	.....	.....	.....	.....	39,187	42	34,962	25	4,225	17	.....	.....
Port Arthur and Fort William.....	185,135	49	6,185	42	4,043	74	3,089	09	198,453	74	164,846	11	33,607	63	.....	.....
Sandwich, Windsor & Amherstburg.....	197,524	70	6,121	93	825	00	49,493	81	253,965	44	147,194	30	106,771	14	.....	.....
Midland Terminal.....	.....	.....	26,727	54	.....	.....	74	20	26,801	74	32,761	90	.....	.....	5,960	16
Sarnia Street.....	49,931	70	.....	.....	.....	.....	.....	.....	49,931	70	37,598	70	12,333	00	.....	.....
St. Thomas Street.....	19,103	79	.....	.....	.....	.....	1,884	91	20,988	70	26,398	99	.....	.....	5,410	29
Toronto Street.....	5,107	701	05	.....	.....	.....	52,747	94	5,160	448	4,801	802	358,646	80	.....	.....
Toronto Suburban.....	62,874	12	.....	.....	.....	.....	18,619	41	81,493	53	57,954	72	23,538	81	.....	.....
Toronto & York Radial.....	391,423	54	66,311	95	2,428	76	9,535	84	469,700	09	415,264	54	54,435	55	.....	.....
Thurlow Railway.....	.....	.....	41,950	00	.....	.....	.....	.....	41,950	00	16,082	12	25,867	88	.....	.....
Woodstock, Thames Valley & Ingersoll.....	No report.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Windsor & Tecumseh Electric Railway.....	Leased and operated by that Ry.	.....	.....	.....	Sandwich.	.....	Windsor & Amherstburg	.....	.....	.....	.....	.....	.....	.....	.....	.....
	8,512,138	48	279,773	14	31,342	43	205,652	42	9,028,906	47	7,786,728	21	1,262,110	96	19,932	70

BERLIN & WATERLOO STREET RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH NOVEMBER, 1912.

General Exhibit:

Gross earnings from operating	\$46,008 60	
Less operating expenses	31,922 97	
Gross income over operating expenses		\$14,085 63

Charges upon Income:

Accrued during year		
Interest on funded debt	\$5,536 89	
Interest on unfunded debt and loans	802 31	
Taxes	1,715 32	
Depreciation		
Payment to municipalities for franchise	5,120 53	
Total deduction from income		\$13,175 05
Surplus		\$910 58

Earnings from Operation:

From passengers carried	\$40,175 25	
From mails	1,339 12	
From advertising in cars	558 53	
From other sources, tolls and parcels	3,935 70	
Total gross earnings from operation		\$46,008 60

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$1,548 38	
General office expenses and supplies	914 23	
Legal expenses		
Insurance	1,739 30	
		\$4,201 91

Other General Expenses:

Advertising	\$641 50	
Miscellaneous general expenses, rent, etc.	835 22	
		\$1,476 72

Maintenance Roadway and Buildings:

Repair roadbed and track	\$1,679 30	
Repair electric line construction		
Repair of buildings	232 83	
		\$1,912 13

Maintenance of Equipment:

Repairs, cars and other vehicles	\$3,971 03	
Repairs of electric equipment of cars		
Renewals of tools and machinery		
		\$3,971 03

Transportation Expenses:

Cost of motive power	\$7,582 50	
Wages of persons conducting transportation	9,688 29	
Removal of snow and ice	638 15	
Damages for injuries to persons and to property		
		\$17,908 94

Other Transportation Expenses:

Car service expenses and supplies	\$1,830 57	
Repairs, storage battery	621 67	
Cleaning, oiling and sanding tracks		
		\$2,452 24

Total operating expenses		\$31,922 97
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Assets:

Cost of Railway:	
Roadbed and tracks	\$188,874 96
Electric line construction, including poles and wiring	
Total cost of railway owned	

Cost of Equipment:

Cars and other rolling stock and vehicles	
Cost of electric equipment of same	
Other items of equipment	
Office furniture	
Total cost equipment	

Cost of Land and Buildings:

Land necessary for operation of railway	
Electric power stations, including equipment	
Other buildings necessary for operation of railway	
Total cost of land and buildings owned	

Cash	\$309 05
Bills and accounts receivable	1,264 87
Other current assets	8,132 35
Miscellaneous assets	
Material and supplies	
	\$9,705 77
Profit and loss balance deficit	\$148,080 73
Total assets	

Liabilities:

Capital stock	
Funded debt	\$181,465 00

Current Liabilities:

Loans and notes payable	\$3,660 97
Audited voucher and accounts	
Miscellaneous current liabilities	

Accrued Liabilities:

Interest accrued and not due	\$3,686 40
Depreciation	16,231 28
Profit and loss account balance surplus	2,028 08

Total liabilities	\$148,080 73
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Capital Stock:

Authorized by law	
Authorized by votes of Company	
Outstanding	
Number of stockholders	

FUNDED DEBT.

Description of Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
.....			\$121,465.....	

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	982,750
Number carried per mile of main track operated	245,687
Number of car miles run	129,463
Average number of persons employed	22
Company commenced operation .....	.....

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	7	.....	.....	7	.....	7
Open passenger cars	2	.....	.....	2	.....	.....
Total	9	.....	.....	9	.....	7
Cars—other service:						
Other cars (motor) .....	.....	.....	.....	.....	.....	.....
Snow plows	1	.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Highway vehicles	None
Tower wagon	
Tip carts	

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track—1.....	Miles. 3.12
.....2.....	.50
Length of sidings and switches	.88
	4.50

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured	Killed.	Injured.	Killed.	Injured.
Passengers.....						
Employees.....						
Other persons.....						
Totals						

Names and business addresses of principal officers: Chairman, A. L. Breithaupt, Berlin; Treasurer, V. S. McIntyre, Berlin; General Counsel, J. A. Scellen, Berlin; Auditor, J. M. Scully, F.C.A., Berlin; Superintendent, V. S. McIntyre, Berlin.

Name of officer and address to whom correspondence should be addressed: V. S. McIntyre, Secy.-Treas. and Supt., 54 King St. West, Berlin, Ont.

Names and residences of Board of Directors: Albert L. Breithaupt, Berlin, Ont.; George Lippert, Berlin, Ont.; Dr. John J. Walters, Berlin, Ont.; Dr. Robt. Schnarr, Berlin, Ont.

BERLIN & NORTHERN RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$7,993 64	
Less operating expenses	6,166 72	
Gross income over operating expenses		\$1,826 92

Charges upon Income:

Accrued during year		
Interest on funded debt	120 00	
Interest on unfunded debt and loans	684 20	
Taxes	131 15	
Payment to municipalities for franchise		
Total deduction from income		\$935 35
Surplus or deficit		\$891 57

Earnings from Operation:

From passengers carried	\$7,679 67	
From mails	96 50	
From advertising in cars	98 40	
From other sources	119 07	
Total gross earnings from operation		\$7,993 64

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$928 99	
General office expenses and supplies	35 00	
Legal expenses		
Insurance	352 50	
		\$1,316 49

Other General Expenses:

Advertising		
Miscellaneous general expenses, rent	\$409 09	
		\$409 09

Maintenance Roadway and Buildings:

Repair roadbed and track	\$559 11	
Repairs electric line construction		
Repairs of buildings		
		\$559 11

Maintenance of Equipment:

Repairs, cars and other vehicles		
Repairs of electric equipment of cars		
Renewals of tools and machinery		

Transportation Expenses:

Cost of motive power and track and cars	\$1,989 72	
Wages of persons conducting transportation	1,801 54	
Removal of snow and ice	90 77	
Damages for injuries to persons and to property		
		\$3,882 03

Other Transportation Expenses:

Car service expenses and supplies	
Cleaning, oiling and sanding tracks	
Total operating expenses	\$6,166 72

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	\$22,985 01
Electric line construction, including poles and wiring	755 71
Total cost of railway owned	\$23,740 72

Cost of Equipment:

Cars and other rolling stock and vehicles	
Cost of electric equipment of same	
Other items of equipment	
Office furniture	
Total cost of equipment	

Park improvement	\$1,488 79
------------------------	------------

Cost of Land and Buildings:

Land necessary for operation of railway	\$3,133 39
Electric power station, including equipment	
Other buildings necessary for operation of railway ..	6,497 01
Total cost of land and buildings owned	\$9,630 40

Cash	\$20 55
Bills and accounts receivable	194 82
Other current assets	
Miscellaneous assets	
Material and supplies	
	\$215 37

Profit and loss balance deficit	
---------------------------------------	--

Total assets	\$35,075 28
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Liabilities:

Capital stock	\$17,400 00
Funded debt	2,400 00

Current Liabilities:

Loans and notes payable	\$14,321 31
Audited voucher and accounts	
Miscellaneous current liabilities	
	\$14,321 31

Accrued Liabilities:

Interest accrued and not due	
Profit and loss account balance surplus	\$953 97

Total liabilities	\$35,075 28
-------------------------	-------------

Capital Stock:

Authorized by law	\$17,400 00
Authorized by votes of company	17,400 00
Outstanding	17,400 00
Number of stockholders	

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
First mortgage.....	5%	.....	\$2,400	\$120

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year.....	191,992
Number carried per mile of main track operated	10,000
Number of car miles run	82,000
Average number of persons employed	4
Company commenced operation .....	....

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for electric power.	Number equipped.	Total passenger cars.	Equipped with fenders.	Equipped with electric heaters.	Number of motors.
Box passenger cars.....	1	.....	.....	.....	.....	.....
Total	1	.....	.....	.....	.....	.....
Cars other service—						
Other cars (motor).....		.....	.....	.....	.....	.....
Snow plows .....		.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon.....	.....
Tip carts.....	.....

RAILWAY OWNED AND OPERATED.

	Miles.
Length of railway line computed as single track.....	2.5
Length of sidings and switches.....	7=3.2

ACCIDENTS TO PERSONS.

Killed and injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers.....						
Employees.....						
Other persons						
Totals						

Names and business addresses of principal officers: President, William H. Breithaupt, Berlin, Ont.; Vice-President, John S. Anthes, Berlin, Ont.; Treasurer, Joseph H. Wuest, Berlin, Ont.; Superintendent, Joseph H. Wuest, Berlin, Ont.; Correspondent, W. H. Breithaupt, President, Berlin, Ont.

Names and residences of Board of Directors: William H. Breithaupt, Berlin, Ont.; Louis J. Breithaupt, Berlin, Ont.; John S. Anthes, Berlin, Ont.; Alexander Miller, Berlin, Ont.; George M. Shirk, Bridgeport, Ont.

CORNWALL STREET RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$32,253 85	
Less operating expenses	23,948 32	
Gross income over operating expenses		\$8,305 53

Charges upon Income:

Accrued during year		
Interest on funded debt		
Interest on unfunded debt and loans		
Taxes		
Payment to municipalities for franchise		
Total deduction from income		
Surplus		\$8,305 53

Earnings from Operation:

From passengers carried	\$18,313 94	
From mails	544 40	
From advertising in cars, \$360.00; ft., \$10,506.82.....	10,866 82	
From other sources	2,528 69	
Total gross earnings from operation		\$32,253 85

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$1,280 05	
General office expenses and supplies	676 44	
Legal expenses	1 00	
Insurance	606 47	
		\$2,563 96

Other General Expenses:

Advertising Park, expenses	\$1,483 13	
Miscellaneous general expenses	721 48	
		\$2,204 61

Maintenance Roadway and Buildings:

Repair roadbed and track	\$1,730 47	
Repair electric line construction	156 41	
Repair of buildings		
		\$1,886 88

Maintenance of Equipment:

Repairs, cars and other vehicles	\$2,377 74	
Repairs of electric equipment of cars	1,251 44	
Renewals of tools and machinery	28 22	
		\$3,657 40

Transportation Expenses:

Cost of motive power	\$1,730 85	
Wages of persons conducting transportation	10,278 95	
Removal of snow and ice		
Damages for injuries to persons and to property		
		\$12,009 80

Other Transportation Expenses:

Car service expenses and supplies	\$798 95	
Cleaning, oiling and sanding tracks	\$26 72	
		\$1,625 67
Total operating expenses		\$23,948 32

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	
Electric line construction, including poles and wiring	
Total cost of railway owned	

Cost of Equipment:

Cars and other rolling stock and vehicles	
Cost of electric equipment of same	
Other items of equipment	
Office furniture	
Total cost equipment	\$216,103 99

Cost of Land and Buildings:

Land necessary for operation of railway	
Electric power stations, including equipment	
Other buildings necessary for operation of railway	
Total cost of land and buildings owned	

Cash	\$5,979 97	
Bills and accounts receivable	2,556 62	
Other current assets	13,921 92	
Miscellaneous assets		
Material and supplies		
		22,458 51
Profit and loss balance deficit		
Total assets		\$238,562 50

Liabilities:

Capital stock (common)	100,000 00
Capital stock (preferred)	100,000 00
Funded debt	

Current liabilities:

Loans and notes payable	1,843 57
Audited voucher and accounts	
Miscellaneous current liabilities	

Accrued Liabilities:

Interest accrued and not due	
Profit and loss account balance surplus	36,718 93

Total liabilities	\$238,562 50
-------------------------	--------------

Capital Stock:

Authorized by law	\$200,000 00	\$200,000 00
Authorized by votes of Company	200,000 00	200,000 00
Outstanding	200,000 00	200,000 00
Number of stockholders		

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
None				

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	411,016
Number carried per mile of main track operated	102,754
Number of car miles run	196,999
Average number of persons employed	40
Company commenced operation	April, 1902

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	7	.....	.....	.....	.....	.....
Open passenger cars	3	.....	.....	.....	.....	.....
Total	10	.....	.....	.....	.....	.....
Cars—other service:						
Other cars (motor) .....	.....	.....	.....	.....	.....	.....
Snow plow (1), electric motors (2).....	.....	.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon .....	.....
Tip carts .....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	Miles. 4
Length of sidings and switches	2.5
	6.5

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers						None.
Employees						None.
Other persons						None.
Totals						

Names and business addresses of principal officers: President, Samuel Hamilton Ewing; Vice-President, Abner Kingman; Treasurer, Alexander Steele; Cashier of Corporation, John C. Broderick; Auditor, P. S. Ross & Sons; General Manager, Wm. Hodge, Cornwall.

Name and address to whom correspondence should be addressed: Wm. Hodge, Manager, Cornwall.

Names and residences of Board of Directors: Samuel Hamilton Ewing, 102 King Street, Montreal; Abner Kingman, 137 Board of Trade, Montreal; John Redpath Dougall, *The Witness*, Montreal; John McKergon, 575 St. Paul Street, Montreal; Thomas B. Macauley, Sun Life office, Montreal.

GALT, PRESTON & HESPELER RAILWAY COMPANY.

General Exhibit:

Gross earnings from operating	\$179,606 94	
Less operating expenses	104,271 87	
Gross income over operating expenses		\$75,335 07
Interest on deposits		80 17
		<u>\$75,415 24</u>

Charges upon Income:

Accrued during year		
Interest on funded debt	\$3,357 35	
Interest on unfunded debt and loans		
Taxes	2,597 35	
Payment to municipalities for franchise		
Total deduction from income		<u>\$5,954 70</u>
Surplus or deficit		\$69,460 54

Earnings from Operation:

From passengers carried	\$84,507 49	
From mails	1,874 87	
From express parcels	6,723 89	
From freight	85,511 71	
From other sources	988 98	
Total gross earnings from operation		<u>\$179,606 94</u>

Expenses of Operation:

General expenses	\$10,271 46	
Salaries of officers and clerks	13,022 56	
General office expenses and supplies	1,936 43	
Legal expenses		
Insurance	4,190 00	
		<u>\$29,420 45</u>

Other General Expenses:

Advertising		
Miscellaneous general expenses		

Maintenance Roadway and Buildings:

Repair roadbed and track	\$12,284 52	
Repair electric line construction	2,115 41	
Repair of buildings		
		<u>14,399 93</u>

Maintenance of Equipment:

Repairs, cars, and other vehicles	\$521 15	
Repairs of electric equipment of cars	4,052 91	
Renewals of tools and machinery	1,287 52	
		<u>5,861 58</u>

Transportation Expenses:

Cost of motive power	\$22,637 76	
Wages of persons conducting transportation	26,768 50	
Removal of snow and ice	2,170 51	
Damages for injuries to persons and to property	5 00	
		<u>51,581 77</u>

Other Transportation Expenses:

Car service expenses and supplies	3,008 14	
Cleaning, oiling and sanding tracks		

Total operating expenses \$104,271 87

Liabilities:

Capital stock (common)	\$31,310 00	
Funded debt	541,852 47	

Current Liabilities:

Loans and notes payable	\$6,191 60	
Salaries and wages	16,064 02	
Miscellaneous current liabilities, ft. interchange	73,426 24	
		<u>95,681 86</u>

Accrued Liabilities:

Interest accrued and not due	645 85	
Reserves	237,290 84	
Profit and loss account balance surplus	69,460 54	

Total liabilities \$976,241 56

Capital Stock:

Authorized by law	
Authorized by votes of Company	
Outstanding	
Number of stockholders	

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
Collateral Trust	5%	.....	15,000	.....

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	1,110,725
Number carried per mile of main track operated	58, 459
Number of car miles run	289, 642
Average number of persons employed	106
Company commenced operation	1890

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	11	.....	.....	.....	9	.....
Open passenger cars	4	.....	.....	.....	.....	.....
Total	15	.....	.....	.....	9	.....
Cars—other service:						
Other cars (3 e. locomotives), 2 baggage cars, 3 cattle cars, (1) platform car, (2) tool cars .....	.....	.....	.....	.....	.....	.....
Snow plows (2) .....	.....	.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon .....	.....
Tip carts .....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track 1st track	Miles. 1,781
2nd track	136
Length of sidings and switches	725
	2,642

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers				2	.....	2
Employees		1	.....	3	.....	4
Other persons			1	.....	1	.....
Totals		1	1	5	1	6

Corporate name and address of the Company: Galt, Preston and Hespeler Street Railway Company, Limited, Galt, Ont.

Names and business addresses of principal officers: President, Martin N. Todd, Galt; Vice-President, Geo. D. Forbes, Hespeler; Treasurer, Wm. H. Lutz, Galt; Clerk of Corporation, Wm. H. Lutz, Galt; General Counsel, Clement R. Hanning, Preston, Ont.; Auditor, George Easton and Joseph M. Irvin, Galt; General Manager, Martin N. Todd, Galt; Superintendent, Matthew W. Kirkwood, Preston; Correspondent, Wm. H. Lutz, Secretary-Treasurer, Galt.

Names and residences of Board of Directors: Martin N. Todd, Galt; Geo. D. Forbes, Hespeler; J. T. Arundel, Toronto; Hugh Mc——, Galt; Frederick Clare, Preston.

GUELPH RADIAL RAILWAY COMPANY.

FOR THE YEAR ENDING SEPTEMBER, 1912.

General Exhibit:

Gross earnings from operating	\$38,401 59	
Less operating expenses	30,562 40	
Gross income over operating expenses		\$7,839 19

Charges upon Income:

Accrued during year		
Interest on funded debt		5,253 90
Interest on unfunded debt and loans		
Taxes		
Payment to municipalities for franchise		
Total deduction from income		
Surplus or deficit		\$2,585 29

Earnings from Operation:

From passengers carried	\$35,595 09	
From freight	1,521 04	
From advertising in cars	400 55	
From other sources	884 91	
Total gross earnings from operation		38,401 59

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$1,352 35	
General office expenses and supplies	436 91	
Legal expenses	267 02	
Insurance	542 53	
		2,598 81

Other General Expenses:

Advertising		221 54
Miscellaneous general expenses		3,476 32

Maintenance Roadway and Buildings:

Repair roadbed and track	\$1,710 39	
Repair electric line construction	102 75	
Repair of buildings		
		1,813 14

Maintenance of Equipment:

Repairs, cars and other vehicles	} \$6,794 64	
Repairs of electric equipment of cars		
Renewals of tools and machinery		6,794 64

Transportation Expenses:

Cost of motive power	\$5,499 09	
Wages of persons conducting transportation	10,158 86	
Removal of snow and ice		
Damages for injuries to persons and to property		
		15,657 95

Other Transportation Expenses:

Car service expenses and supplies		
Cleaning, oiling and sanding tracks		

Total operating expenses		\$30,562 40
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GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	
Electric line construction, including poles and wiring	
Total cost of railway owned	

Cost of Equipment:

Cars and other rolling stock and vehicles	
Cost of electric equipment of same	
Other items of equipment	
Office furniture	
Total cost of equipment	

Cost of Land and Buildings:

Land necessary for operation of railway	
Electric power station, including equipment	
Other buildings necessary for operation of railway	
Total cost of land and buildings owned	

Cash	
Bills and accounts receivable	
Other current assets	
Miscellaneous assets	
Material and supplies	
Profit and loss balance deficit	

Total assets	\$172,478 88
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Liabilities:

Capital stock	\$169,500 00
Funded debt	
	<u>\$147,275 19</u>

Current Liabilities:

Loans and notes payable	
Audited voucher and accounts	
Miscellaneous current liabilities	

Accrued Liabilities:

Interest accrued and not due	
Profit and loss account balance surplus	

Total liabilities	\$147,275 19
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Capital Stock:

Authorized by law	\$200,000 00
Authorized by votes of company	200,000 00
Outstanding	169,500 00
Number of stockholders	

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
1st mortgage.....	4½	.....	\$147,275 19	\$5,253 90

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	929,045
Number carried per mile of main track operated	109,299
Number of car miles run	242,200
Average number of persons employed	
Company commenced operation	1895

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped Fenders.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters	Number of Motors.
Box passenger cars	8	11	.....	.....	8	.....
Open passenger cars	5	.....	.....	.....	.....	.....
Total	13	11	.....	.....	8	.....
Cars—other service:						
Other cars (motor) .....	.....	.....	.....	.....	.....	.....
Snow plows (1); sweeper (1) .....	.....	.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Electric Locomotives (1).....	.....
Tower wagon .....	.....
Tip carts .....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	Miles. 8.5
Length of sidings and switches	333
	8.833

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured
Passengers						
Employees						
Other persons						
Totals						

HUNTSVILLE & LAKE OF BAYS RAILWAY COMPANY.

FOR THE YEAR ENDING 31ST DECEMBER, 1912.

General Exhibit:		
Gross earnings from operation	\$5,569 74	
Less Operating Expenses	3,219 22	
Gross income over operating expenses		\$2,350 52

Charges upon Income:

Accrued during year		
Dividend		
Interest on funded debt, 8½%, \$27,800	\$2,363	00
Interest on unfunded debt and loans		
Taxes	71	25
Payment to municipalities for franchise		
Total deduction from income		\$2,434 25
Surplus or deficit		\$83 73

Earnings from Operation:

From passengers carried	\$1,729	18
From mails	30	00
From advertising in cars	1,384	96
From other sources, portaging bark, etc.	2,425	60
Total gross earnings from operation		\$5,569 74

Expenses of Operation:

General Expenses:

Salaries of officers and clerks		
General office expenses and supplies		
Legal expenses		
Insurance	\$45	00

Other General Expenses:

Fuel	\$519	64
Miscellaneous general expenses		

Maintenance Roadway and Buildings:

Repair roadbed and track	\$350	66
Repair electric line construction		
Repair of buildings		

Maintenance of Equipment:

Repairs, cars and other vehicles		
Repairs of electric equipment of cars		
Renewals of tools and machinery	\$200	00

Transportation Expenses:

Cost of motive power		
Wages of persons conducting transportation	\$2,063	92
Removal of snow and ice		
Damages for injuries to persons and to property		

Other Transportation Expenses:

Car service expenses and supplies	\$5	00
Cleaning, oiling and sanding tracks	35	00

Total operating expenses	\$3,219	22
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GENERAL BALANCE SHEET, 31ST DECEMBER, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	\$14,695	67
Interest accrued during construction	2,325	43
Electric line construction, including poles and wiring	2,814	16
Total cost of railway owned		\$19,835 26

Cost of Equipment:

Cars and other rolling stock and vehicles	\$5,813	40
Cost of electric equipment of same		
Other items of equipment, one 10-ton crane	1,760	71
Office furniture		
Total cost equipment		\$7,574 11

Cost of Land and Buildings:

Land necessary for operation of railway	\$390 63
Electric power stations, including equipment	
Other buildings necessary for operation of railway ..	
Total cost of land and buildings owned	

Cash	
Bills and accounts receivable	
Other current assets	
Miscellaneous assets	
Material and supplies	
Profit and loss balance deficit	
Total assets	\$27,800 00

Liabilities:

Capital stock	\$27,800 00
Funded debt	

Current Liabilities:

Loans and notes payable	
Audited voucher and accounts	
Miscellaneous current liabilities	

Accrued Liabilities:

Interest accrued and not due	
Profit and loss account balance surplus	

Total liabilities	\$27,800 00
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Capital Stock:

Authorized by law	\$27,800 00
Authorized by votes of company	27,800 00
Outstanding	27,800 00
Number of stockholders	6

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
.....				

VOLUME OF TRAFFIC. ETC.

Number of paying passengers carried during year	12,200
Number carried per mile of main track operated.....	12,200
Number of car miles run	1,400
Average number of persons employed.....	5
Company commenced operation.....	1907

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	2	.....	.....	.....	.....	.....
Platform Cars.....	6	.....	.....	.....	.....	.....
Total	8	.....	.....	.....	.....	.....
Cars—other service:						
Other cars (motor)						
Snow plows						

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon .....	.....
Tip carts, 1-10 ton crane equipped with car wheels.....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track.....	Miles. 1
Length of sidings and switches.....	.....
	

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers.....						
Employees.....						
Other persons.....						
Totals.....						

Names and business addresses of principal officers: President, Chas. O. Shaw, Huntsville, Ont.; Vice-President, H. Foster Chaffee, Toronto; Treasurer, John W. McKee, Huntsville; General Counsel, A. A. Mahaffy, K.C., M.P.P., Bracebridge; Auditor, E. S. Rombough, Bracebridge; General Manager, Silas H. Jacobs, Huntsville; Name of officer to whom correspondence should be addressed, Wm. J. Moore, Secretary and Asst. Gen. Manager, Huntsville, Ont.

Names and residences of Board of Directors: Chas. O. Shaw, Huntsville, Ont.; H. Foster Chaffee, Toronto, Ont.; Silas H. Jacobs, Huntsville; Wm. J. Moore, Huntsville; John W. McKee, Huntsville.

HAMILTON & DUNDAS STREET RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$56,495 98	
Rental of track	2,795 68	
Less operating expenses		
Gross income over operating expenses		\$59,291 66
		42,178 09
		<u>\$17,113 57</u>

Charges upon Income:

Accrued during year		
Interest on funded debt	\$5,000 00	
Interest on unfunded debt and loans		
Taxes	1,096 68	
Payment to municipalities for franchise		
Total deduction from income		6,096 68
Surplus		<u>\$11,016 89</u>

Earnings from Operation:

From passengers carried	\$53,819 51	
Other sources	956 76	
From mails	148 00	
From advertising in cars	100 00	
From other sources, rentals	1,471 71	
Total gross earnings from operation		<u>\$56,495 98</u>

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$3,460 62	
General office expenses and supplies	220 57	
Legal expenses	225 76	
Insurance	117 73	
		<u>\$4,024 68</u>

Other General Expenses:

Advertising		
Miscellaneous general expenses		\$500 51

Maintenance Roadway and Buildings:

Repair roadbed and track	\$8,286 59	
Repair electric line construction	2,968 45	
Repair of buildings	125 41	
		<u>11,380 45</u>

Maintenance of Equipment:

Repairs, cars and other vehicles	\$753 60	
Repairs of electric equipment of cars	562 32	
Renewals of tools and machinery	93 51	
		<u>1,409 46</u>

Transportation Expenses:

Rentals		8,492 31
Cost of motive power	\$4,700 56	
Wages of persons conducting transportation	8,702 51	
Removal of snow and ice	427 57	
Damages for injuries to persons and to property	1,269 49	
		<u>\$15,100 13</u>

Other Transportation Expenses:

Car service expenses and supplies		1,270 55
Cleaning, oiling and sanding tracks		

Total operating expenses		<u>\$42,178 09</u>
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Assets:

Cost of Railway:

Electric line construction, including poles and wiring	
Roadbed and tracks	
Total cost of railway owned	

Cost of Equipment:

Cars and other rolling stock and vehicles	
Cost of electric equipment of same	
Other items of equipment	\$213,531 39
Office furniture	
Total cost equipment	

Cost of Land and Buildings:

Land necessary for operation of railway	
Electric power stations, including equipment	
Other buildings necessary for operation of railway	

Total cost of land and buildings owned \$213,531 39

Cash	\$38,444 49
Bills and accounts receivable	3,974 33
Other current assets	15 50
Miscellaneous assets	
Material and supplies	
Profit and loss balance deficit	\$42,434 32

Total assets \$255,965 71

Liabilities:

Capital stock, common	\$100,000 00
Funded debt	100,000 00

Current Liabilities:

Loans and notes payable, accident insurance	1,232 56
Audited voucher and accounts	
Miscellaneous current liabilities	

Accrued Liabilities:

Taxes accrued and not due	381 82
Profit and loss account balance surplus	54,351 33

Total liabilities \$255,965 71

Capital Stock:

Authorized by law	\$100,000 00
Authorized by votes of company	100,000 00
Outstanding	100,000 00
Number of stockholders	1

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
First Mortgage.....	5%		\$100,000	\$5,000

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	645,059
Number carried per mile of main track operated	92,415
Number of car miles run	133,119
Average number of persons employed	
Company commenced operation	

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	1	.....	.....	1	1	.....
Open passenger cars	2	.....	.....	2	.....	.....
Total	3	.....	.....	3	1	.....
Cars—other service:						
Other cars (motor)						
Snow plows						

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon .....	.....
Tip carts .....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	Miles. 5.848
Length of sidings and switches Trackage other roads	1.132
	6.98

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers				1	.....	1
Employees				1	.....	1
Other persons				3	.....	3
Totals				5	.....	5

Names and business addresses of principal officers: President, John Dickenson, North Glanford; Vice-President, James Dixon, Hamilton; Treasurer, John Knox, Hamilton; Clerk of Corporation, Geo. D. Fearman, Hamilton; General Counsel, Gibson, O'Reilly & Levy, Hamilton; Auditor, C. S. Scott, F.C.A., Hamilton; General Manager, Wm. C. Hawkins, Hamilton; Manager, Edw. P. Coleman, Hamilton; name of officer to whom correspondence should be addressed, Ed. P. Coleman, Manager, Hamilton.

Names and residences of Board of Directors: J. Moodie, Hamilton; James Dixon, Hamilton; John Knox, Hamilton; W. C. Hawkins, Hamilton; John Dickenson, North Glanford; A. Bruce, K.C., Toronto; W. G. Rundle, Toronto.

THE HAMILTON STREET RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$512,496 28	
Less operating expenses	297,439 38	
Gross income over operating expenses		\$215,056 90

Charges upon income:

Accrued during year		
Interest on funded debt	\$22,500 00	
Interest on unfunded debt and loans	3,388 60	
Taxes, Dividend, 7%, \$205,000	14,350 00	
Payment to municipalities for franchise	52,882 28	
Total deduction from income		93,120 88
Surplus or deficit		\$121,936 02

Earnings from Operation:

From passengers carried	\$506,868 88	
From advertising	600 00	
From rentals	4,605 40	
From other sources	422 00	
Total gross earnings from operation		\$512,496 28

Expenses of Operation:

General Expenses:		
Salaries of officers and clerks	\$20,152 21	
General office expenses and supplies	802 50	
Legal expenses	1,896 65	
Insurance	3,047 54	
		\$25,898 90

Other General Expenses:

Advertising	\$849 68	
Miscellaneous general expenses	1,120 88	
		1,970 56

Maintenance Roadway and Buildings:

Repair roadbed and track	\$13,201 69	
Repair electric line construction	5,665 04	
Repair of buildings	371 29	
		19,238 02

Maintenance of Equipment:

Repairs, cars and other vehicles	\$20,080 25	
Repairs of electric equipment of cars	15,852 59	
Renewals of tools and machinery		
		35,932 84

Transportation Expenses:

Cost of motive power	\$53,462 86	
Wages of persons conducting transportation	106,164 45	
Removal of snow and ice	6,306 79	
Damages for injuries to persons and to property ..	24,966 49	
		190,900 59

Other Transportation Expenses:

Rentals	\$12,155 67	
Car service expenses and supplies	6,630 37	
Cleaning, oiling and sanding tracks and heating ...	4,712 43	
		23,498 47

Total operating expenses	\$297,439 38
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GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	
Electric line construction, including poles and wiring	
Total cost of railway owned	

Cost of Equipment:

Cars and other rolling stock and vehicles	
Cost of electric equipment of same	
Other items of equipment	
Office furniture	
Total cost equipment	

\$1,661,175 79

Cost of Land and Buildings:

Land necessary for operation of railway	
Electric power stations, including equipment	
Other buildings necessary for operation of railway	

Total cost of land and buildings owned\$1,661,175 79

Cash	\$42,227 41
Bills and accounts receivable	3,946 93
Other current assets, new tracks	48,169
Miscellaneous assets, prepaid insurance	616 72
Material and supplies	

\$94,960 06

Profit and loss balance deficit

Total assets\$1,756,135 85

Liabilities:

Capital stock	\$914,000 00
Funded debt	500,000 00

Current liabilities:

Loans and notes payable	\$88,781 22
Audited voucher and accounts, taxes	3,146 29
Miscellaneous current liabilities, coupons	1,620 00

93,547 51

Accrued Liabilities:

Accident reserve	\$6,905 29
Interest accrued and not due	
Profit and loss account balance surplus	241,683 05

248,588 34

Total liabilities\$1,756,135 85

Capital Stock:

Authorized by law	\$914,000 00
Authorized by votes of company	914,000 00
Outstanding	182,000 00
Number of stock holders	

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
First mortgage.....	4½	.....	\$500,000	\$22,500

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	12,322,744
Number carried per mile of main track operated.....	552,846
Number of car miles run	1,817,946
Average number of persons employed.....	245
Company commenced operation.....	.....

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters	Number of Motors.
Box passenger cars	58	.....	.....	62	18	.....
Cars, 6 Platform.....	33	.....	.....	33	.....	.....
Total.....	91	.....	.....	95	18	.....
Cars—other service:						
Other cars (motor) .....	.....	.....	.....	.....	.....	.....
Snow plows (3) Tool car (1).....	.....	.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon .....	.....
Tip carts.....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	22.29
Length of sidings and switches .....	.....

ACCIDENTS TO PERSONS.

Killed and injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers		63	.....	170	.....	233
Employees		4	.....	.....	.....	4
Other persons			4	116	.....	116
Totals.....		67	4	286	.....	353

Names and business addresses of the principal officers: President, J. R. Moodie, Hamilton, Ont.; Vice-President, John Dickenson, North Glanford; Treasurer, John Knox, Hamilton; Clerk of Corporation, Geo. D. Fearman, Hamilton; General Counsel, Gibson, O'Reilly & Levy, Hamilton; Auditor, C. S. Scott, F.C.A., Hamilton; General Manager, Wm. C. Hawkins, Hamilton; Superintendent, Edw. P. Coleman, Hamilton; name of officer to whom correspondence should be addressed. Edw. P. Coleman, Manager, Hamilton, Ont.

Names and residences of Board of Directors: J. R. Moodie, Hamilton; James Dixon, Hamilton; John Knox, Hamilton; Wm. C. Hawkins, Hamilton; John Dickenson, North Glanford; A. Bruce, K.C., Toronto; W. E. Rundle, Toronto.

HAMILTON, GRIMSBY AND BEAMSVILLE ELECTRIC RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$128,449 02	
Less operating expenses		109,363 57
Gross income over operating expenses		\$19,085 45

Charges upon Income:

Accrued during year		
Interest on funded debt	\$7,500 00	
Interest on unfunded debt and loans	344 22	
Taxes	2,918 51	
Dividend, 7 per cent.		
Payment to municipalities for franchise	16,450 00	
		27,212 73
Total deduction from income		
Deficit		\$8,127 28

Earnings from Operation:

From passengers carried	\$83,775 10	
From mails	550 00	
From advertising in cars	350 00	
From express, \$6,286.54; freight, \$31,126.17	37,412 71	
From other sources, rentals, etc.	6,361 21	
Total gross earnings from operation		\$128,449 02

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$8,370 60	
General office expenses and supplies	641 57	
Legal expenses	1,100 86	
Insurance	715 58	
		\$10,828 61

Other General Expenses:

Advertising		
Miscellaneous general expenses	\$1,061 75	
		1,061 75

Maintenance Roadway and Buildings:

Repair roadbed and track	\$11,837 55	
Repair electric line construction	4,744 54	
Repair of buildings	1,728 37	
		\$18,310 46

Maintenance of Equipment

Repairs, cars and other vehicles	\$13,331 94	
Repairs of electric equipment of cars	5,307 46	
Renewals of tools and machinery	660 64	
		19,300 04

Transportation Expenses:		
Cost of motive power	\$14,580 16	
Wages of persons conducting transportation	21,735 88	
Removal of snow and ice	1,022 37	
Damages for injuries to persons and to property	5,728 76	
		43,067 17
Other Transportation Expenses:		
Car service expenses and supplies, rentals, other expenses and incidentals	\$11,594 32	
Cleaning, oiling and sanding tracks	5,201 21	
		16,795 54
Total operating expenses		\$109,363 57

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:		
Roadbed and tracks		}
Electric line construction, including poles and wiring		
Total cost of railway owned		
Cost of Equipment:		
Cars and other rolling stock and vehicles		}
Cost of electric equipment of same		
Other items of equipment		
Office furniture		
Total cost equipment		\$425,329 74
Cost of Land and Buildings:		
Land necessary for operation of railway		}
Electric power stations, including equipment		
Other buildings necessary for operation of railway		
Total cost of land and buildings owned		
Cash	\$5,036 59	
Bills and accounts receivable		
Other current assets, new track	9,118 00	
Miscellaneous assets, prepaid insurance	686 65	
Material and supplies		
		\$14,841 24
Profit and loss balance deficit		
Total assets		\$440,170 98

Liabilities:

Capital stock		\$235,000 00
Funded debt		150,000 00
Current Liabilities:		
Loans and notes payable	\$13,593 08	
Audited voucher and accounts	85 68	
Miscellaneous current liabilities		
		13,678 76
Accrued Liabilities:		
Interest accrued and not due	\$1,250 00	
Taxes accrued	1,168 00	
		2,418 00
Profit and loss account balance surplus		39,074 22
Total liabilities		\$440,170 98

Capital Stock:

Authorized by law	\$235,000 00
Authorized by votes of Company	235,000 00
Outstanding	2,350 00
Number of stockholders	8

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
1 First Mortgage.....	5 %	.....	\$150,000	\$7,500

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year.....	632,341
Number carried per mile of main track operated	27,979
Number of car miles run.....	364,900
Average number of persons employed.....	71
Company commenced operation.....	.....

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	8	.....	.....	12	.....	12
Open passenger cars (trailers).....	2	.....	.....	2	.....	.....
Total	10	.....	.....	14	.....	12
Cars Other Service:						
Other cars (motor) Baggage (4).....	.....	.....	.....	.....	.....	.....
Snow plows.....	.....	.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon .....	.....
Tip carts .....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track.....	Miles. 22.6
Length of sidings and switches .....	.....
	22.6

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured
Passengers.....		12				12
Employees.....		1				1
Other persons.....						
Totals.....		13				13

Names and business addresses of principal officers: President, James Dixon, Hamilton; Vice President, John Dickenson, North Glanford; Treasurer, John Knox, Hamilton; Clerk of Corporation, Geo. D. Fearman; General Counsel, Gibson O'Reilly Levy; Auditor, C. S. Scott; General Manager, Wm. C. Hawkins; Manager, E. Coleman.

Name and address to whom correspondence should be addressed: Ed. P. Coleman, Manager, Hamilton.

Names and residences of Board of Directors: John Dickenson, North Glanford; James Dixon, Hamilton, Ont.; Sir John M. Gibson, Hamilton, Ont.; Wm. C. Hawkins, Hamilton, Ont.; John Knox, Hamilton, Ont.; J. R. Moodie, Hamilton, Ont.; J. W. Sutherland, Hamilton, Ont.

INTERNATIONAL TRANSIT RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$104,958 63	
Less operating expenses	41,429 66	
		\$63,528 97
Gross income over operating expenses		1,052 75

Surplus, 30th June, 1911	\$64,581 72
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Charges upon Income:

Dividend on common stock	\$28,742 87	
Accrued during year		
Interest on funded debt	14,000 00	
Interest on unfunded debt and loans	446 58	
Taxes, commutation	606 10	
Reserve for bond redemption	20,000 00	
Payment to municipalities for franchise		
Total deduction from income		63,795 56
Surplus		\$786 17

Earnings from Operation:

From passengers carried	\$80,942 94	
From mails		
From advertising in cars	844 89	
From other sources, ferry earnings	23,170 80	
Total gross earnings from operation		\$104,958 63

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$3,440 19	
General office expenses and supplies	3,618 63	
Legal expenses	468 55	
Insurance	570 67	
		\$8,098 04

Other General Expenses:

Advertising	
Miscellaneous general expenses	

Maintenance Roadway and Buildings:

Repair roadbed and track	\$2,595 74	
Repair electric line construction	49 62	
Repair of buildings	190 97	
		<u>2,836 33</u>

Maintenance of Equipment:

Repairs, cars and other vehicles	\$2,480 23	
Repairs of electric equipment of cars	985 38	
Renewals of tools and machinery	96 84	
Miscellaneous	402 63	
		<u>3,965 08</u>

Transportation Expenses:

Cost of motive power	\$8,531 19	
Wages of persons conducting transportation	17,415 58	
Removal of snow and ice	145 96	
Damages for injuries to persons and to property		
		<u>26,092 73</u>

Other Transportation Expenses:

Car service expenses and supplies	\$437 48	
Cleaning, oiling and sanding tracks		
		<u>437 48</u>

Total operating expenses	\$41,429 66
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GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	\$110,690 76	
Electric line construction, including poles and wiring, and engineering	44,207 31	
Total cost of railway owned		<u>\$154,898 07</u>

Cost of Equipment:

Cars and other rolling stock and vehicles	\$27,273 91	
Cost of electric equipment of same	17,553 87	
Other items of equipment	9,946 05	
Office furniture		
Total cost equipment		<u>54,773 83</u>

Cost of Land and Buildings:

Land necessary for operation of railway		
Electric power stations, including equipment		26,026 37
Other buildings necessary for operation of railway		
Total cost of land and buildings owned		
Wharves and landings		1,738 91
Ferries		90,666 43
Cash	\$29,532 31	
Bills and accounts receivable	2,394 57	
Other current assets, prepaid accounts	875 00	
		<u>32,801 88</u>
Miscellaneous assets	\$4,941 78	
Rights and franchises	148,250 00	
Material and supplies		
Old account items	84,649 97	
		<u>237,841 75</u>

Profit and loss balance deficit

Total assets	\$598,747 24
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Liabilities:

Capital stock (common)	\$150,000 00
Funded debt	280,000 00

Current Liabilities:

Loans and notes payable		
Audited voucher and accounts	\$6,609 93	
Coupons unpaid	7,000 00	
Miscellaneous current liabilities		
Lake Superior Corporation	37,069 87	
		50,679 80

Accrued Liabilities:

Old account items	95,714 32	
Interest accrued and not due, reserve bond redemption	20,000 00	
Accident fund	1,566 95	
Profit and loss account balance surplus	786 17	

Total liabilities \$598,747 24

Capital Stock:

Authorized by law	\$150,000 00	
Authorized by votes of Company	150,000 00	
Outstanding	150,000 00	
Number of stockholders		15

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
First Mortgage	5 per cent.	1st July, 1912 and yearly	\$280,000	\$14,000

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	1,957,225
Number carried per mile of main track operated	
Number of car miles run	291,829
Average number of persons employed	25
Company commenced operation	1887

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	8			8	8	
Open passenger cars trailer	3					
Total	11			8	8	
Cars—other service:						
Other cars (motor), tool car 1	1					
Snow plows sweeper	1					

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon .....	.....
Tip carts .....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	Miles. 2.68
Length of sidings and switches.....	.22
	3.90

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured
Passengers						
Employees						1
Other persons		1	.....	.....	.....	.....
Totals		1	.....	.....	.....	1

Names and business addresses of principal officers: President, Thomas J. Drummond, Montreal, Que.; Vice-Presidents, J. Frater Taylor and W. C. Franz, Soo, Ont.; Treasurer, A. H. Chitty, Soo, Ont.; Clerk of Corporation, Thomas Gibson, Toronto; General Counsel, ; Comptroller, Lionel Lumb, Soo, Ont.; General Manager, W. C. Franz, Soo; Superintendent, J. Summerhays, Soo.

Name and address to whom correspondence should be addressed: Lionel Lumb, Comptroller, Soo, Ont.

Names and residences of Board of Directors: T. J. Drummond, Montreal, Clark Fisher Bldg.; W. K. Whigham, London, 8 Crosby Square; J. Frater Taylor, Soo, Ont.; J. Tatnall Lea, Philadelphia, First National Bank; R. L. Austin, Philadelphia, Gerrard National Bank; H. Cappell, New York, 2 William Street; J. S. Dale, New York, 2 William Street; Capt. D. C. Newton, Montreal; W. C. Franz, Soo, Ont.; T. Gibson, Toronto, Traders Bank Bldg.; H. M. Price, Quebec. H. M. Price & Co.; J. T. Ferry, Jr., New York, 100 Battery Place.

KINGSTON, PORTSMOUTH & CATARAQUI ELECTRIC RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$36,285 08	
Less operating expenses	30,716 32	
Gross income over operating expenses		\$5,568 76

Charges upon Income:

Accrued during year		
Interest on funded debt		5,924 00
Interest on unfunded debt and loans		
Taxes		
Payment to municipalities for franchise		
Total deduction from income		
Deficit		\$351 24

Earnings from Operation:

From passengers carried	\$35,031 97
From mails	
From advertising in cars	300' 00
From other sources, rentals	953 11
Total gross earnings from operation	\$36,285 08

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$2,339 15
General office expenses and supplies	2,703 22
Legal expenses	
Insurance	631 08
	\$5,673 45

Other General Expenses:

Advertising, Lake Ontario Park	\$2,115 52
Miscellaneous general expenses	
	\$2,115 52

Maintenance Roadway and Buildings:

Repair roadbed and track	\$2,725 21
Repair electric line construction	215 66
Repair of buildings	773 27
	3,714*14

Maintenance of Equipment:

Repairs, cars and other vehicles	
Repairs of electric equipment of cars	\$3,924 60
Renewals of tools and machinery	
	3,924 60

Transportation Expenses:

Cost of motive power	\$3,784 76
Wages of persons conducting transportation	3,116 45
Removal of snow and ice	7,873 04
Damages for injuries to persons and to property	514 36
	15,288 61

Other Transportation Expenses:

Car service expenses and supplies	
Cleaning, oiling and sanding tracks, etc.	

Total operating expenses \$30,716 32

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	}
Electric line construction, including poles and wiring	
Total cost of railway owned	

Cost of Equipment:

Cars and other rolling stock and vehicles	}
Cost of electric equipment of same	
Other items of equipment	
Office furniture	
Total cost equipment	

Cost of Land and Buildings:

Land necessary for operation of railway	}	\$100,000 00
Electric power stations, including equipment		
Other buildings necessary for operation of railway		
Total cost of land and building owned		

Cash	}
Bills and accounts receivable	
Other current assets	
Miscellaneous assets	
Material and supplies	
Profit and loss balance deficit	

Total assets \$100,000 00

Liabilities:

Capital stock	
Funded debt	\$100,000 00

Current Liabilities:

Loans and notes payable	
Audited voucher and accounts	
Miscellaneous current liabilities	

Accrued Liabilities:

Interest accrued and not due	
Profit and loss account balance surplus	

Total liabilities	\$100,000 00
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Capital Stock:

Common	\$40,000
Preferred	43,100 00
Authorized by law	
Authorized by votes of company	
Outstanding	
Number of stock holders	

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
.....				

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year.....	856,540
Number carried per mile of main track operated.....	107,087
Number of car miles run.....	199,680
Average number of persons employed	19
Company commenced operation	1876

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	8	.....	.....	all	7	.....
Open passengers cars	12	.....	.....	all	.....	.....
Total	20	.....	.....	all	7	.....
Cars—other service:						
Other cars (motor) .....	.....	.....	.....	.....	.....	.....
Snow plows (2) (1 work car).....	.....	.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Highway vehicles	} None.
Tower wagon	
Tip carts	

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	Miles. 8
Length of sidings and switches.....	
	8

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed	Injured.
Passengers				1		1
Employees						
Other persons						
Totals				1		1

Names and business addresses of the principal officers: President, Henry W. Richardson, Kingston, Ont.; Vice-President, Robert V. Rogers (deceased), Kingston, Ont.; Secretary and Treasurer, William F. Nickle, Kingston, Ont.; Superintendent, Hugh C. Nickle, Kingston, Ont.; Correspondent, William F. Nickle, Secretary and Treasurer, Kingston, Ont.

Names and residences of Board of Directors: Henry W. Richardson, Kingston, Ont.; Robert V. Rogers (deceased), Kingston, Ont.; William F. Nickle, Kingston, Ont.; Hugh C. Nickle, Kingston, Ont.; George Richardson, Kingston, Ont.; James Richardson, Kingston, Ont.; W. D. Ross, Toronto, Ont.

LONDON STREET RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE. 1912.

General Exhibit:

Gross earnings from operating	\$293,614 15	
Less operating expenses	194,637 23	
Gross income over operating expenses		\$98,976 92

Charges upon Income:

Accrued during year		
Interest on funded debt	\$28,861 60	
Interest on unfunded debt and loans	81 15	
Taxes	5,280 32	
Dividend 6%		
Payment to Municipalities for franchise	33,240 00	
Total deduction from income		\$67,463 07
Surplus		\$31,513 85

Earnings from Operation:

From passengers carried	\$289,091 16	
From mails	1,239 98	
From advertising in cars	2,368 84	
From other sources	914 17	
Total gross earnings from operation		\$293,614 15

Expenses of Operation:

General expenses	\$3,716 72	
Salaries of officers and clerks	6,339 40	
General office expenses and supplies	648 29	
Legal expenses	399 96	
Insurance	2,200 00	
		\$13,304 37

Other General Expenses:

Advertising		
Miscellaneous general expenses		

Maintenance Roadway and Buildings:

Repair roadbed and track	\$18,665 15	
Repair electric line construction	3,965 19	
Repair of buildings	713 84	
Shop, expenses	2,993 95	
		\$26,338 13

Maintenance of Equipment:

Repairs, cars and other vehicles	\$10,095 41	
Repairs of electric equipment of cars	11,838 18	
Renewals of tools and machinery	540 74	
Stabling	300 04	
		22,774 37

Transportation Expenses:

Cost of motive power	41,258 27	
Wages of persons conducting transportation	73,223 54	
Removal of snow and ice	1,695 80	
Damages for injuries to persons and to property ...	11,409 11	
		\$127,586 72

Other Transportation Expenses:

Car service expenses and supplies	4,633 64	
Cleaning, oiling and sanding tracks		

Total operating expenses \$194,637 23

GENERAL BALANCE SHEET. 30TH JUNE, 1912.

Assets:

Cost of Railway:

Interest accrued during construction	\$70,937 50	
Roadbed and tracks	600,572 24	
Electric line construction, including poles and wiring	67,674 37	
Total cost of railway owned		\$739,184 11

Cost of Equipment:

Cars and other rolling stock and vehicles	\$113,274 55	
Cost of electric equipment of same	80,019 68	
Other items of equipment	32,044 24	
Office furniture		
Total cost equipment		225,338 47

Cost of Land and Buildings:

Land necessary for operation of railway	\$85,334 55	
Electric power stations, including equipment	98,902 23	
Tools necessary for operation of railway	5,211 48	
Total cost of land and buildings owned		189,448 26
Miscellaneous assets		5,811 80

Cash	\$15,336 15	
Bills and accounts receivable	2,601 14	
Other current assets	7,997 45	
		25,934 74
Miscellaneous assets	33,573 44	
Material and supplies, suspense	45,902 83	
		\$79,476 27
Profit and loss balance deficit		
Total assets		\$1,265,193 65
Liabilities:		
Capital stock		\$556,000 00
Funded debt		577,000 00
Current Liabilities:		
Tickets outstanding	\$16,711 34	
Audited voucher and accounts	17,177 23	
Miscellaneous current liabilities, div. July	16,680 00	
		\$50,568 57
Accrued Liabilities:		
Taxes accrued	\$2,550 00	
Interest accrued and not due	9,355 25	
		\$11,905 25
Profit and loss account balance surplus		69,719 83
Total liabilities		\$1,265,193 65
Capital Stock:		
Authorized by law		\$750,000 00
Authorized by votes of company		650,000 00
Outstanding		556,000 00
Number of stock holders		64 00

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
First mortgage gold	5%	1,925	577,000	33,240

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	7,908,572
Number carried per mile of main track operated	
Number of car miles run	1,452,351
Average number of persons employed	300
Company commenced operation	1889

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	29			42	49	
Open passenger cars	9					
Total	48			42	49	
Cars—other service:						
Other cars (motor) trailers (5) platform cars (1)						
Snow plows (1) tool cars (1)						

MISCELLANEOUS EQUIPMENT.

Highway vehicles	
Tower wagon flat cars (2).....	
Tip carts line wagons (2) horses (2) snow lifter (1).....	

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track ...1st.....	Miles. 25.73
.....2.....	6.79
Length of sidings and switches.....	.73
	33.25

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers						34
Employees.....						11
Other persons						24
Totals.....						69

Names and business addresses of principal officers: President, Henry A. Everett, Cleveland, Ohio; Vice-President, Thos. H. Smallman, London, Ont.; Treasurer, John W. Williams, London, Ont.; Clerk of Corporation, John W. Williams, London, Ont.; Gen. Counsel, Ivey & Dromgole, London, Ont.; Auditor, Fred. H. Coles & A. E. Jerden, London, Ont.; Manager, C. B. King, London, Ont.; Superintendent, James Young, London, Ont.; Officer to whom correspondence should be addressed, John H. Williams, Secretary-Treasurer, London, Ont.

Names and residences of Board of Directors: Henry A. Everett, Cleveland, Ohio; Edw. W. Moore, Cleveland, Ohio; Chas. H. Ivey, London, Ont.; H. S. Holt, Montreal; Thos. H. Smallman, London; P. W. D. Broderick, Toronto; Wm. M. Spencer, London.

NIAGARA FALLS AND PARK RIVER DIVISION OF THE INTERNATIONAL RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$149,505 71	
Less operating expenses	80,387 34	
Gross income over operating expenses		\$69,118 37
Interest earned and rents		8,349 94
		\$77,468 31

Charges upon Income:

Accrued during year		
Interest on funded debt	\$30,000 00	
Interest on unfunded debt and loans		
Taxes	3,500 38	
Payment to municipalities for franchise		
Total deduction from income		33,500 38
Surplus		\$43,967 93

Earnings from Operation:

From passengers carried	\$139,659 12	
From parcels	410 95	
From mails	200 10	
From switching	6,890 64	
From advertising in cars	676 40	
From other sources	1,668 50	
Total gross earnings from operation		\$149,505 71

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$1,543 30	
General office expenses and supplies	1,166 47	
Legal expenses	335 89	
Insurance	2,875 00	
		\$5,920 66

Other General Expenses:

Advertising		
Miscellaneous general expenses		12,253 01

Maintenance Roadway and Buildings:

Repair roadbed and track	\$17,659 64	
Repair electric line construction	5,595 62	
Repair of buildings	844 70	
		24,099 96

Maintenance of Equipment:

Repairs, cars and other vehicles	\$1,909 09	
Repairs of electric equipment of cars	831 58	
Renewals of tools and machinery and stabling	149 03	
		2,889 70

Transportation Expenses:

Cost of motive power	\$5,943 79	
Wages of persons conducting transportation	27,756 43	
Removal of snow and ice	913 08	
Damages for injuries to persons and to property	38 42	
		34,651 72

Other Transportation Expenses:

Car service expenses and supplies		
Cleaning, oiling and sanding tracks		572 29

Total operating expenses \$80,387 34

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

The assets of this division are included in the assets of the International Railway Company. There is no separate inventory of same.

Liabilities:

The liabilities of this division are not kept separate from the liabilities of the International Railway Company.

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
.....				

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	1,339,458
Number carried per mile of main track operated.....	55,560
Number of car miles run	316,683
Average number of persons employed.....	55
Company commenced operation.....	1848

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters	Number of Motors.
Box passenger cars.....	9	.....	.....	.....	.....	.....
Open passenger cars	18	.....	.....	.....	.....	.....
Totals	27	.....	.....	.....	.....	.....
Cars—other service:						
Other cars (motor) 2 baggage, 2 platform .....	.....	.....	.....	.....	.....	.....
Snow plow (1).....	.....	.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Highway vehicles.....	.....
Tower wagon, .....	.....
Tip carts .....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	Miles. 23.116
Length of sidings and switches.....	992
	24.108

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers				8	.....	8
Employees				3	.....	3
Other persons						
Totals				11	.....	11

Corporate name and address of Company: Niagara Falls, Park and River Division of the International Railway Company, 824 Ellicott Square, Buffalo, N.Y.

Names and addresses of principal officers: President, Thomas Penney, 816 Ellicott Square, Buffalo, N.Y.; Vice-President, Thos. E. Mitten, 1035 Land Title Bldg., Philadelphia; Treasurer, George Chambers, 820 Ellicott Square, Buffalo; Clerk of Corporation, Willis C. Dunbar, 824 Ellicott Square, Buffalo; General Counsel, Norton, Penney, Spring & Moore, 860 Ellicott Square, Buffalo, Cohn, Chomaine & Franchot, 44 Falls Square, Buffalo; Auditor, Charles A. Chavel, 830 Ellicott Square, Buffalo; Vice-President and General Manager, Edward G. Connette, 808 Ellicott Square, Buffalo; Superintendent, N. P. Baker, Niagara Falls, N.Y.

Name and address to whom correspondence should be addressed: Willis C. Dunbar, Comptroller and Secretary, 824 Ellicott Square, Buffalo.

Names and residences of Board of Directors: John W. Barr, Jr., Fidelity Trust Co., Louisville, N.Y.; George L. Boissivain, 60 Broadway, New York; Henry E. Boller, 369 Chicago St., Buffalo; Morris Cohn, Jr., 44 Falls St., Niagara Falls; Thomas De Witt Cuyler, 701 Arcade Bldg., Philadelphia; Robert L. Fryer, 272 Main St., Buffalo; Chas. R. Huntley, General Electric Bldg., Buffalo; Thos. E. Mitten, 1035 Land Title Bldg., Philadelphia; James O. Moore, 860 Ellicott Square, Buffalo; Porter Norton, 860 Ellicott Square, Buffalo; Edmund B. Osler, 21 Jordan St., Toronto; Oliver H. Payne, 852 5th Ave., New York; Thos. Penney, 816 Ellicott Square, Buffalo; Robert M. Pomeroy, 1006 Fidelity Bldg., Buffalo; Nelson Robinson, 2 Wall Street, New York; George I. Seney, 206 Ellicott Square, Buffalo; Henry C. Zeller, 1196 Main St., Buffalo.

PORT ARTHUR AND FORT WILLIAM ELECTRIC RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$196,079 15	
Interest on deposits	2,374 59	
		\$198,453 74
Less operating expenses		122,396 09
Gross income over operating expenses		\$76,057 65

Charges upon Income:

Accrued during year		
Interest on funded debt		42,450 02
Interest on unfunded debt and loans		
Taxes		
Payment to municipalities for franchise		
Total deduction from income		

Surplus \$33,607 63

Earnings from Operation:

From passengers carried	\$185,135 49	
From mails	350 00	
Express and baggage	3,693 74	
From advertising in cars	714 50	
From other sources, rock and gravel, etc.	6,185 42	
Total gross earnings from operation		\$196,079 15

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$5,447 44	
General office expenses and supplies	680 19	
Legal expenses	355 00	
Insurance	1,800 00	
		\$8,282 63

Other General Expenses:

Advertising		
Miscellaneous general expenses	\$331 54	

331 54

Maintenance Roadway and Buildings:			
Repair roadbed and track	\$10,878 64		
Repair electric line construction	3,740 76		
Repair of buildings	1,135 36		
			15,754 76
Maintenance of Equipment:			
Repairs, cars and other vehicles	\$10,820 97		
Repairs of electric equipment of cars	7,683 69		
Renewals of tools and machinery	812 44		
			19,317 10
Transportation Expenses:			
Cost of motive power	\$25,808 37		
Wages of persons conducting transportation	51,814 88		
Removal of snow and ice	1,086 81		
Damages for injuries to persons and to property			
			78,710 06
Other Transportation Expenses:			
Car service expenses and supplies			
Cleaning, oiling and sanding tracks			
Total operating expenses			\$122,396 09

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:			
Port Arthur		\$447,673 86	
Fort William		485,181 58	
Roadbed and tracks			
Electric line construction, including poles and wiring.			
Total cost of railway owned			932,855 44
Cost of Equipment:			
Cars and other rolling stock and vehicles			
Cost of electric equipment of same			
Other items of equipment			
Office furniture			
Total cost of equipment			
Cost of Land and Buildings:			
Land necessary for operation of railway			
Electric power stations, including equipment			
Other buildings necessary for operation of railway			
Total cost of land and buildings owned			
Cash	\$157,960 71		
Bills and accounts receivable	15,542 32		
			173,503 03
Other current assets			
Miscellaneous assets			
Material and supplies			5,638 44
Profit and loss balance deficit			
Total assets			\$1,111,996 91

Liabilities:

Capital stock			\$932,855 44
Funded debt			
Current Liabilities:			
Loans and notes payable	\$7,421 91		
Audited voucher and accounts	30,303 53		
			37,725 44
Miscellaneous current liabilities*			141,416 03

Accrued Liabilities:

Interest accrued and not due
 Profit and loss account balance surplus.....

Total liabilities\$1,111,996 91

Capital Stock:

Authorized by law
 Authorized by votes of Company.....
 Outstanding
 Number of stockholders

*Interest and sinking fund on construction cost to City of Fort William not yet specified by city's auditor, and balance as profit to Port Arthur.

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
.....				

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	4,541,011
Number carried per mile of main track operated	179,250
Number of car miles run	948,900
Average number of persons employed.....	115
Company commenced operation	1893

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Stoves.
Box passenger cars.....	22	.....	.....	27	14	9
Open passenger cars.....	2	.....	.....	.....	.....	.....
Totals.....	24	.....	.....	27	14	9
Cars—other service:						
Other cars (motor) electric motors and work cars (2) baggage, mail & ex. car, 1	.....	.....	.....	.....	.....	.....
Snow plows .....	.....	.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon .....	.....
Tip carts .....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track .....(1)....	Miles. 16.583
Length of sidings and switches .....(2)....	8.750
	25.333

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers		1	1		1	1
Employees				4		4
Other persons						
Totals		1	1	4	1	5

Corporate name and address of Company: Port Arthur and Fort William Electric Railway, Port Arthur, Ont.

Names and business addresses of principal officers: Chairman, F. L. Matthews, Port Arthur; Secretary-Treasurer, M. C. Wilson, Port Arthur; General Counsel, W. F. Langworthy, Port Arthur; Auditor, P. H. B. Dawson, Fort William; General Manager, M. O. Robinson, Fort William.

Name of officer to whom correspondence should be addressed: M. C. Wilson, Secretary-Treasurer, Port Arthur.

Names and residences of Joint Board of Commissioners: Isaac L. Matthews, Chairman, Port Arthur; Walter F. Fortune, Port Arthur; Robert Ferguson, Port Arthur; George A. Graham, Fort William; Harry Harkness, Fort William.

SANDWICH, WINDSOR & AMHERSTBURG RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$253,965 44
Less operating expenses	111,433 64

Gross income over operating expenses \$142,531 80

Charges upon Income:

Accrued during year	
Interest on funded debt	\$31,500 00
Interest on unfunded debt and loans	
Taxes, commutation	4,260 66
Payment to municipalities for franchise	
Total deduction from income	\$35,760 66

Surplus \$106,771 14

Earnings from Operation:

From passengers carried	\$197,524 70
From mails	825 00
From freight	6,121 93
From advertising in cars, lighting	47,179 83
From other sources	2,313 98
Total gross earnings from operation	\$253,965 44

Expenses of Operation:

General expenses	\$3,148 36	
Salaries of officers and clerks	5,200 00	
General office expenses and supplies	466 16	
Legal expenses	1,000 00	
Insurance	900 00	
		<u>\$10,714 52</u>

Other General Expenses:

Advertising	
Miscellaneous general expenses	

Maintenance Roadway and Buildings:

Repair roadbed and track	\$16,492 94	
Repair electric line construction	5,531 95	
Repair of buildings	624 39	
		<u>22,649 28</u>

Maintenance of Equipment:

Repairs, cars and other vehicles	\$6,844 76	
Repairs of electric equipment of cars	4,775 84	
Renewals of tools and machinery and engines and generators	835 05	
		<u>12,455 65</u>

Transportation Expenses:

Cost of motive power, \$25,307 61; sold, \$10,880.00....	\$14,327 61	
Wages of persons conducting transportation	45,463 97	
Removal of snow and ice		
Damages for injuries to persons and to property	3,013 45	
		<u>62,805 03</u>

Other Transportation Expenses:

Car service expenses and supplies		2,809 16
Cleaning, oiling and sanding tracks		

Total operating expenses \$111,433 64

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	
Electric line construction, including poles and wiring	

Total cost of railway owned

Cost of Equipment:

Cars and other rolling stock and vehicles	
Cost of electric equipment of same	
Other items of equipment	
Office furniture	

Total cost of equipment

Cost of Land and Buildings:

Land necessary for operation of railway	
Electric power stations, including equipment	
Other buildings necessary for operation of railway	

Total cost of land and buildings owned \$1,056,679 38

Cash	\$1,472 83
Bills and accounts receivable	19,842 39
Other current assets	10,000 00
Miscellaneous assets	4,295 02
Material and supplies	

Profit and loss balance deficit

Total assets \$1,092,289 62

Liabilities:

Capital stock, common	\$297,000 00
Funded debt	490,000 00

Current Liabilities:

Loans and notes payable, Detroit United	\$163,735 77
Audited voucher and accounts	3,725 41
Miscellaneous current liabilities, outstanding tickets..	3,445 18
	<u>170,906 36</u>

Accrued Liabilities:

Insurance and damages	2,758 06
Interest accrued and not due	4,987 50
Taxes accrued and not due	1,770 00
	<u>6,757 50</u>
Profit and loss account balance surplus	124,867 70

Total liabilities\$1,092,289 62

Capital Stock:

Authorized by law	\$500,000 00
Authorized by votes of company	350,000 00
Outstanding	297,000 00
Number of stock holders	9

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
S.W. & A. Ry. 20-year gold.	4½	1st Dec. 1922	\$490,000	\$22,050

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	3,769,603
Number carried per mile of main track operated	102,910
Number of car miles run	923,257
Average number of persons employed.....	120
Company commenced operation.....	1887

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	24					
Open passenger cars	16					
Total	40					
Cars—other service:						
Other cars (motor) tool (3) trailers (3)						
baggage cars (3).....						
Snow plows (1).....						

MISCELLANEOUS EQUIPMENT.

Highway vehicles	
Tower wagon	
Tip carts	

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track owned	Miles. 27.18
Length of sidings and switches leased	9.45
	36.63

ACCIDENTS TO PERSONS

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers						
Employees						
Other persons						
Total						

Corporate name of Company: Sandwich, Windsor & Amherstburg Railway Company.

Names of principal officers: President, Pere C. Hutchins; Vice-President, Frank W. Brooks; Treasurer, Joseph Bampton; Clerk of Corporation, Albert E. Peters; General Counsel, Clerk, Bartlett & Bartlett; Auditor, W. Fullerton; General Manager, James Anderson.

Name of officer to whom correspondence should be addressed: James Anderson, General Manager, Windsor.

Names and residences of Board of Directors: James Anderson, Windsor, Ont.; Joseph Bampton, Detroit, Mich.; Frank W. Brooks, Detroit, Mich.; Allen F. Edwards, Detroit, Mich.; W. Fullerton, Detroit, Mich.; Pere C. Hutchins, Detroit, Mich.; E. W. Moore, Cleveland, Ohio; Albert E. Peters, Detroit Mich.

MIDLAND SIMCOE RAILWAY COMPANY.

(Formerly Midland Terminal Railway Company.)

FOR THE YEAR ENDING 31ST MAY, 1912.

General Exhibit:

Gross earnings from operating	\$26,727 54
Less operating expenses, pasturage	74 20
	\$26,801 74
Less operating expenses	29,866 15
Gross income over operating expenses	\$3,064 41

Charges upon Income:

Accrued during year	
Interest on funded debt	
Interest on unfunded debt and loans	\$2,895 75
Taxes	
Payment to municipalities for franchise	
Total deduction from income	
Deficit	\$5,960 16

Earnings from Operation:

From passengers carried	
From freight	\$26,727 54
From advertising in cars	
From other sources	
Total gross earnings from operation	\$26,727 54

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	
General office expenses and supplies	
Legal expenses	
Insurance	

Other General Expenses:

Advertising	
Miscellaneous general expenses	\$196 32

Maintenance Roadway and Buildings:

Repair roadbed and track	\$4,013 09
Repair electric line construction	
Repair of buildings	

Maintenance of Equipment:

Repairs, cars and other vehicles	\$1,386 42
Repairs of electric equipment of cars	
Renewals of tools and machinery	

Transportation Expenses:

Cost of motive power	
Wages of persons conducting transportation	\$24,270 32
Removal of snow and ice	
Damages for injuries to persons and to property	

Other Transportation Expenses:

Car service expenses and supplies	
Cleaning, oiling and sanding tracks	

Total operating expenses	\$29,866 15
--------------------------------	-------------

GENERAL BALANCE SHEET, 31ST MAY, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	\$31,105 68
Electric line construction, including poles and wiring	
Total cost of railway owned	

Cost of Equipment:

Cars and other rolling stock and vehicles	\$35,940 99
Cost of electric equipment of same	
Other items of equipment	122 20
Office furniture	
Total cost of equipment	36,063 19

Cost of Land and Buildings:	
Land necessary for operation of railway	228,680 14
Electric power station, including equipment	
Other buildings necessary for operation of railway ..	335 19
Total cost of land and buildings owned	
Cash	
Bills and accounts receivable	
Other current assets	
Miscellaneous assets	
Material and supplies	
Profit and loss balance deficit	\$10,565 90
Total assets	\$306,750 10
Liabilities:	
Capital stock	\$250,000 00
Funded debt	
Current Liabilities:	
Loans and notes payable	56,750 10
Audited voucher and accounts	
Miscellaneous current liabilities	
Accrued Liabilities:	
Interest accrued and not due	
Profit and loss account balance surplus	
Total liabilities	\$306,750 10
Capital Stock:	
Authorized by law	\$250,000
Authorized by votes of company	250,000 00
Outstanding	250,000 00
Number of stock holders	11

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
.....				

VOLUME OF TRAFFIC, ETC

Number of paying passengers carried during year	
Number carried per mile of main track operated.....	
Number of car miles run	
Average number of persons employed.....	
Company commenced operation.....	1903

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Coal dump cars (2)						
Platform cars (4).....						
Total						
Cars—other Service:.....						
Other cars (motor), ...						
Snow Plows.....						

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon .....	.....
Tip carts .....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	Miles. 4
Length of siding and switches .....	.....
Total .....	.....

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers						
Employees						
Other persons						
Totals						

Corporate name of Company: Midland Simcoe Railway Company (formerly the Midland Terminal Railway Company).

Names and business addresses of principal officers: President, John J. Drummond, Midland, Ont.; Vice-President, Geo. E. Drummond, Montreal; Treasurer, Arthur R. Fisk, Montreal; Clerk of Corporation, A. C. Adams, Midland, Ont.; General Counsel, W. J. White, K.C., Montreal; Auditor, A. R. Fisk & Co., C.A., Montreal; Gen. Manager, and Superintendent, John J. Drummond, Midland, Ont.; Correspondent, Arthur R. Fisk, Secretary-Treasurer, 703 Eastern Townships Bank Building, Montreal.

Names and residences of Board of Directors: John J. Drummond, Midland, Ont.; Geo. E. Drummond, Montreal, Que.; Thos. J. Drummond, Montreal, Que.; Arthur R. Fisk, Montreal, Que.; Frank Leeming, Brantford, Ont.; Richard Wilton, Montreal, Que.

ST. THOMAS STREET RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$20,988 70	
Less operating expenses	26,398 99	
Gross loss		\$5,410 29

Charges upon Income:

Accrued during year		
Interest on funded debt		
Interest on unfunded debt and loans		
Taxes		
Payment to Municipalities for franchise		
Total deduction from income		
Deficit		\$5,410 29

Earnings from Operation:

From passengers carried	\$19,103 79	
From mails		
From advertising in cars		1,884 91
From other sources		
Total gross earnings from operation		<u>\$20,988 70</u>

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$930 00	
General office expenses and supplies	420 00	
General expenses	219 25	
Insurance ..	315 50	
		<u>\$1,884 75</u>

Other General Expenses:

Advertising		
Miscellaneous general expenses	1 00	
		<u>1 00</u>

Maintenance Roadway and Buildings:

Repair roadbed and track	\$2,661 14	
Repair electric line construction		
Repair of buildings		
		<u>2,661 14</u>

Maintenance of Equipment:

Repairs, cars and other vehicles	\$3,010 45	
Repairs of electric equipment of cars		
Renewals of tools and machinery		
		<u>3,010 45</u>

Transportation Expenses:

Cost of motive power	\$4,285 12	
Wages of persons conducting transportation	14,556 52	
Removal of snow and ice		
Damages for injuries to persons and to property		
		<u>18,841 65</u>

Other Transportation Expenses:

Car service expenses and supplies		
Cleaning, oiling and sanding tracks		
Total operating expenses		<u>\$26,398 99</u>

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks		
Electric line construction, including poles and wiring		
Total cost of railway owned		<u>\$37,817 00</u>

Cost of Equipment:

Cars and other rolling stock and vehicles		
Cost of electric equipment of same		
Other items of equipment		
Office furniture		
Total cost equipment		<u>\$32,683 00</u>

Cost of Land and Buildings:

Land necessary for operation of railway		
Electric power stations, including equipment		
Other buildings necessary for operation of railway		
Total cost of land and buildings owned		<u>\$4,500 00</u>

Cash	\$156 19
Bills and accounts receivable	105 00
Other current assets	
Miscellaneous assets	
Material and supplies	
Profit and loss balance deficit	261 19
Total assets	\$75,261 19

Liabilities:

Capital stock	
Funded debt	\$56,290 24

Current Liabilities:

Loans and notes payable	\$1,746 10
Audited voucher and accounts	1,852 85
Miscellaneous current liabilities	

Accrued Liabilities:

Interest accrued and not due	
Profit and loss account balance surplus	15,372 00

Total liabilities	\$75,261 19
-------------------------	-------------

Capital Stock:

Authorized by law	
Authorized by votes of company	
Outstanding	
Number of stock holders	

FUNDED DEBT.

Description Bonds	Rate Interest	Maturity Bonds	Amount of Bonds Outstanding	Interest paid during year
.....				

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during the year.....	470,609
Number carried per mile of main track operated.....	62,750
Number of car miles run.....	262,920
Average number of persons employed.....	28
Company commenced operation.....	

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars.....	6	.....	.....	6	6	.....
Open passenger cars.....	6	.....	.....	6	6	.....
Total.....	12	.....	.....	12	12	.....
Cars—other service:						
Other cars (motor), trailer (4)						
Snow plows (1).....						

MISCELLANEOUS EQUIPMENT.

Highway vehicles.....	
Tower wagon.....	
Tip carts.....	

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track.....	Miles. 7.50
Length of sidings and switches	

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers.....						
Employees.....						
Other persons.....						
Totals.....						

Corporate name and address of the Company: St. Thomas Municipal Street Railway, City Hall, St. Thomas, Ont.

Names and business addresses of principal officers: Secretary-Treasurer, Miss Winifred Sanders, City Hall, St. Thomas, Ont.; Clerk of Corporation, W. B. Doherty, Esq.; Auditor, H. T. Gough, St. Thomas, Ont.; Superintendent, J. F. Daugherty, St. Thomas, Ont.

Names and residences of the Board of Directors: Chairman, John R. Martin, St. Thomas, Ont.; Mayor, R. N. Price, St. Thomas, Ont.

TORONTO SUBURBAN RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:		
Gross earnings from operating	\$78,763 95	
Other items	2,729 58	
		\$81,493 53
Less operating expenses	50,570 07	
Other items	999 70	
		51,569 77
Gross income over operating expenses		\$29,923 76
Charges upon Income:		
Accrued during year	314 85	
Interest on funded debt		
Interest on unfunded debt and loans		
Taxes	1,194 40	
Crossings light and power	4,875 70	
Payment to municipalities for franchise		
		6,384 95
Total deduction from income		
Surplus		\$23,538 81

Earnings from Operation:

From passengers carried	\$62,874 12	
From mails		
From advertising in cars		
From other sources	15,889 83	
Total gross earnings from operation		\$78,763 95

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$4,012 50	
General office expenses and supplies	633 84	
Legal expenses	94 00	
Insurance	2,435 48	
		\$7,175 82

Other General Expenses:

Advertising		
Miscellaneous general expenses		3,502 19

Maintenance Roadway and Buildings:

Repair roadbed and track	\$8,731 25	
Repair electric line construction	564 39	
Repair of buildings	438 75	
		9,734 39

Maintenance of Equipment:

Repairs, cars and other vehicles	\$3,891 61	
Repairs of electric equipment of cars	3,223 10	
Renewals of tools and machinery	113 46	
		7,228 17

Transportation Expenses:

Cost of motive power	\$6,000 00	
Wages of persons conducting transportation	15,963 95	
Removal of snow and ice	965 55	
Damages for injuries to persons and to property		
		22,929 50

Other Transportation Expenses:

Car service expenses and supplies		
Cleaning, oiling and sanding tracks		
Total operating expenses		\$50,570 07

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	}	
Electric line construction, including poles and wiring		
Total cost of railway owned		

Cost of Equipment:

Cars and other rolling stock and vehicles	}	\$233,709 79
Cost of electric equipment of same		
Other items of equipment		
Office furniture		
Total cost equipment		

Cost of Land and Buildings:

Land necessary for operation of railway	}	
Electric power stations, including equipment		
Other buildings necessary for operation of railway		

Total cost of land and buildings owned \$233,709 79

Cash	\$2,754 89	
Bills and accounts receivable	8,351 66	
Other current assets	975 00	
		12,081 55

Miscellaneous assets	
Material and supplies	9,343 82
Profit and loss balance deficit	
Total assets	\$255,135 16
Value of new lines	\$3,901,389 39
	\$4,156,524 55

Liabilities:	
Capital stock	\$1,500,000 00
Funded debt	2,628,000 00
Current Liabilities:	
Loans and notes payable	13,788 04
Audited voucher and accounts	100 00
Miscellaneous current liabilities	14,636 51
Accrued Liabilities:	
Interest accrued and not due	
Profit and loss account balance surplus	
Total liabilities	\$4,156,524 55

Capital Stock:	
Authorized by law	\$3,000,000 00
Authorized by votes of company	3,000,000 00
Outstanding	1,500,000 00
Number of stock holders	6

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
First Mortgage	4½	.....	2,628,000	Paid by Construc- tion Company.

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	1,462,656
Number carried per mile of main track operated	148,633
Number of car miles run.....	248,675
Average number of persons employed.....	38
Company commenced operation.....	

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors
Box passenger cars	11	.....	.....	.....	11	.....
Open passenger cars.....	3	.....	.....	.....	.....	.....
Totals.....	14	.....	14	.....	11	.....
Cars—other Service						
Other cars (motor) platform (2).....	.....	.....	.....	.....	.....	.....
Snow sweepers (1) .....	.....	.....	.....	.....	.....	.....

MISCELLANEOUS EQUIPMENT.

Highway vehicles.....	
Tower wagon	
Tip carts.....	

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track.....	Miles. 9.84
Length of sidings and switches.....	.42
Total	10.26

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers.....		2				2
Employees.....						
Other persons.....						
Totals.....		2				2

Corporate name and address of Company: Toronto Suburban Railway Company,
West Toronto, Ont.

Names of principal officers: President, Sir Wm. MacKenzie; Vice-President, Allan H. Royce; Treasurer, Geo. C. Royce; General Counsel, Messrs. Royce, Henderson & Boyd; General Manager, Geo. C. Royce; Correspondent, Geo. C. Royce, Secretary, West Toronto.

Names and residences of Board of Directors: Sir Wm. MacKenzie, Toronto; Allan H. Royce, Toronto; Hon. F. H. Phippen, Toronto; Geo. C. Royce, Toronto; L. W. Mitchell, Toronto; R. M. Horne Payne, London, England.

TORONTO RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$5,160,448 99	
Less operating expenses	2,703,747 05	
Gross income over operating expenses		\$2,456,701 94

Charges upon Income:

Accrued during year, reserves	\$287,463 20	
Interest on funded debt	182,622 97	
Dividend	830,777 80	
Taxes	57,540 73	
Payment to municipalities for franchise	739,650 44	
Total deduction from income		2,098,055 14
Surplus		\$358,646 80

Earnings from Operation:

From passengers carried	\$5,107,701 05	
From mails		
From advertising in cars		
From other sources	52,747 94	
Total gross earnings from operation		\$5,160,448 99

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$79,507 38	
General office expenses and supplies	29,516 08	
Legal expenses	9,609 16	
Insurance	18,064 39	
		136,697 01

Other General Expenses:

Advertising		
Miscellaneous general expenses		

Maintenance Roadway and Buildings:

Repair roadbed and track	\$76,323 72	
Repair electric line construction	20,950 32	
Repair of buildings	28,577 66	
		125,851 70

Maintenance of Equipment:

Repairs, cars and other vehicles	\$191,963 48	
Repairs of electric equipment of cars	124,658 11	
Renewals of tools and machinery	33,334 77	
Other items	70,038 88	
		419,995 24

Transportation Expenses:

Cost of motive power	\$473,220 91	
Wages of persons conducting transportation	1,308,857 66	
Removal of snow and ice	8,161 22	
Damages for injuries to persons and to property ...	221,625 71	
		2,011,865 50

Other Transportation Expenses:

Car service expenses and supplies, compressors	\$3,622 56	
Cleaning, oiling and sanding tracks	5,715 04	
		9,337 60

Total operating expenses \$2,703,747 05

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	
Electric line construction, including poles and wiring	
Total cost of railway owned	

Cost of Equipment:

Cars and other rolling stock and vehicles	
Cost of electric equipment of same	
Other items of equipment	
Office furniture	
Total cost equipment	\$18,099,727 37

Cost of Land and Buildings:

Land necessary for operation of railway	
Electric power stations, including equipment	
Other buildings necessary for operation of railway	

Total cost of land and buildings owned \$18,099,727 37

Cash	\$553,654 76	
Bills and accounts receivable	414,669 17	
Other current assets, special funds	48,197 52	
Miscellaneous assets		
Material and supplies	286,546 40	
		1,303,067 85
Profit and loss balance deficit		
Total assets		\$19,402,795 22

Liabilities:

Capital stock	\$10,999,176 55
Funded debt	3,829,633 33
Mortgages	70,000 00

Current Liabilities:

Audited voucher and accounts	\$339,997 32
Dividends	219,913 50
Miscellaneous current liabilities, tickets	115,814 82
	675,725 64

Accrued Liabilities:

Interest accrued and not due	66,460 49
Reserves	447,737 48
Profit and loss account balance surplus	3,314,061 73

Total liabilities	\$19,402,795 22
-----------------------------	-----------------

Capital Stock:

Authorized by law	\$12,000,000 00	\$12,000,000 00
Authorized by votes of Company		
Outstanding	10,999,176 00	
Number of stockholders		2,210

FUNDED DEBT.

Description Bonds	Rate Int.	Maturity Bonds	Amount of Bonds Outstanding	Interest paid During year
First Mortgage	4½	1921	\$3,229,633 00	\$14,622,297 00
Underlying Debenture	6 per cent.		600,000 00	36,000 00

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	128,317,403
Number carried per mile of main track operated	
Number of car miles run	18,543,297
Average number of persons employed	2,750
Company commenced operation	

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars	241	38	.....	.....	.....	.....
Combination cars.....	88	92	.....	.....	.....	.....
Open passenger cars	372	35	.....	.....	.....	.....
Total	701	165	.....	719	687	.....
✶Cars—other Service:						
Other cars (motor)						
Snow plows (17)						

MISCELLANEOUS EQUIPMENT.

Highway vehicles, (1) sleigh, (6) carts; (7) sprinklers .....	.....
Tower wagon, work cars (10), air compressors (2) .....	.....
Tip carts, overhead wagons (2), horses (10), wagons (17).....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	Miles. 114.362
Length of sidings and switches	7.321
	121.683

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers		213	4	682	4	895
Employees.....		102	.....	169	.....	271
Other persons.....			23	182	23	182
Totals.....		315	27	1,033	27	1,348

Corporate name and address of the Company: The Toronto Railway Company, King and Church Streets, Toronto.

Names and addresses of principal officers: President, Sir Wm. Mackenzie, 1 Toronto Street, Toronto; Vice-President, Frederic Nicholls, King and Simcoe Streets; Treasurer, J. C. Grace, King and Church Streets; General Counsel, McCarthy, Osler, Hoskin & Harcourt, Home Life Building; Auditors, Clarkson & Cross, Scott and Wellington Streets; General Manager, Robert J. Fleming, King and Church Streets; Superintendent, James Gunn, King and Church Streets.

Name of officer to whom correspondence should be addressed: Robert J. Fleming, General Manager, King and Church Streets.

Board of Directors: Sir Wm. Mackenzie, Frederic Nicholls, George A. Cox, Willmott D. Matthews, Sir Henry M. Pellatt, Toronto; Rodolphe Forget, Montreal; James Gunn, Toronto.

TORONTO AND YORK RADIAL RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating	\$469,700 09	
Less operating expenses	293,140 55	
Gross income over operating expenses		\$176,559 54

Charges upon Income:

Accrued during year		
Interest on funded debt	\$82,000 01	
Interest on unfunded debt and loans	34,756 68	
Taxes	5,367 30	
Payment to municipalities for franchise		122,123 99
Total deduction from income		
Surplus for deficit		\$54,435 55

Earnings from Operation:

From passengers carried	\$391,423 54	
From mails	2,428 76	
From advertising in cars	881 80	
From other sources, freight and parcels	66,311 95	
Total gross earnings from operation	\$461,046 05	
Sale of gravel and other items	8,654 04	
		\$469,700 09

Expenses of Operation:

General Expenses:

Salaries of officers and clerks	\$12,514 13	
General office expenses and supplies	2,374 69	
Legal expenses	381 50	
Insurance	2,021 87	
		\$17,292 19

Other General Expenses:

Advertising and attractions	\$1,638 78	
Miscellaneous general expenses	12,726 12	
		14,364 90

Maintenance Roadway and Buildings:

Repair roadbed and track and bridges	\$24,734 88	
Repair electric line construction and phones	3,854 86	
Repair of buildings	1,942 21	
		30,531 95

Maintenance of Equipment:

Repairs, cars and other vehicles	\$17,648 77	
Repairs of electric equipment of cars	16,137 43	
Renewals of tools and machinery	9,897 04	
		43,683 24

Transportation Expenses:

Cost of motive power	\$65,619 12	
Wages of persons conducting transportation	77,916 87	
Removal of snow and ice	6,875 30	
Damages for injuries to persons and to property	10,205 00	
		160,616 29

Other Transportation Expenses:

Stabling	7,826 89
Car service expenses and supplies, freight expenses...	\$13,335 98
Cleaning, oiling and sanding tracks	5,489 11
	<u>18,825 99</u>
Total operating expenses	\$293,140 55

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Purchase price	\$2,800,000 00
Cost of Railway:	
Roadbed and tracks and right of way	964,826 33
Electric line construction, including poles and wiring	191,810 38
Total cost of railway owned	
Cost of Equipment:	
Cars and other rolling stock and vehicles	226,140 45
Cost of electric equipment of same	138,367 80
Other items of equipment	13,944 35
Office furniture	
Total cost equipment	
Cost of Land and Buildings:	
Land necessary for operation of railway	202,051 33
Electric power stations, including equipment	42,867 04
Other buildings necessary for operation of railway	1,483 39
Total cost of land and buildings owned	
Cash	\$5,627 42
Bills and accounts receivable	96,176 81
	<u>101,804 23</u>
Other current assets	}
Uncompleted and undistributed items	
Miscellaneous assets	
Material and supplies	125,573 82
Profit and loss balance deficit	
Total assets	\$4,894,077 79

Liabilities:

Capital stock	\$2,000,000 00
Funded debt	1,640,000 00
Real estate, mortgages	29,650 00
Current Liabilities:	
Loans and notes payable	\$951,319 90
Audited voucher and accounts	27,414 52
Miscellaneous current liabilities	175 27
	<u>978,909 69</u>
Accrued Liabilities:	
Tickets unredeemed	4,915 30
Interest accrued and not due	20,800 00
Contingent account	18,431 00
Profit and loss account balance surplus	201,371 80
Total Liabilities	\$4,894,077 79

Capital Stock:

Authorized by law	\$2,000,000 00
Authorized by votes of Company	2,000,000 00
Outstanding	2,000,000 00
Number of shareholders	

FUNDED DEBT.

Description Bond.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding	Interest paid during year.
Gold First Mortgage	5%	.....	\$1,640,000	\$82,000

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year.....	4,532,504
Number carried per mile of main track operated.....	62.577
Number of car miles run	1,176,376
Average number of persons employed.....	350
Company commenced operation.....	.....

DESCRIPTION OF EQUIPMENT

Description and Equipment	Equipped for Electric Power	Number Equipped	Total passenger Cars.	Equipped with Fenders	Equipped with Electric Heaters	Number of Motors
Box passenger cars.....	40	.....	.....	.....	.....	.....
Open passenger cars.....	4	.....	.....	.....	.....	.....
Totals.....	44	.....	.....	.....	.....	.....
Cars—other service .						
Other cars (motor) baggage (10) tool cars						
(9) official car (1).....						
Snow plows (4)						

MISCELLANEOUS EQUIPMENT

Highway vehicles .....	.....
Tower wagon, carts and snow sleds	9
Tip cars, motor trucks	4
Automobile.....	1

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	Miles. 72.43
Length of sidings and switches	9.57
	82

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers				27		27
Employees.....						
Other persons.....					1	
Totals.....				27	1	27

Corporate name and address of Company: Toronto and York Radial Railway Company, King and Church Streets, Toronto.

Names and business addresses of principal officers: President, Sir Wm. Mackenzie, Toronto; Vice-President, Frederic Nicholls, Toronto; Treasurer, J. C. Grace, Toronto; Auditor, J. M. Smith, Toronto; General Manager, W. H. Moore, Toronto; Assistant General Manager, Chas. L. Wilson, Toronto.

Name of officer to whom correspondence should be addressed: Chas. L. Wilson, Assistant Manager, King and Church Streets, Toronto.

Names and residences of Board of Directors: Sir Wm. Mackenzie, Frederic Nicholls, J. C. Grace, James Gunn, Hon. Geo. A. Cox, W. D. Matthews, Toronto.

THURLOW RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:			
Gross earnings from operating freight		\$41,950 00	
Less operating expenses		16,082 12	
Gross income over operating expenses			\$25,867 88
Charges upon Income:			
Accrued during year			
Interest on funded debt			
Interest on unfunded debt and loans			
Taxes			
Payment to municipalities for franchise			
Total deduction from income			
Surplus			\$25,867 88
Earnings from Operation:			
From passengers carried			
From mails			
Freight			\$41,950 00
From other sources			
Total gross earnings from operation			\$41,950 00
Expenses of Operation:			
General Expenses:			
Salaries of officers and clerks			
General office expenses and supplies			
Legal expenses			
Insurance			
Other General Expenses:			
Advertising			
Miscellaneous general expenses			

Maintenance Roadway and Buildings:

Repair roadbed and track	\$5,017 19
Repair electric line construction	
Repair of buildings	

Maintenance of Equipment:

Repairs, cars and other vehicles	
Repairs of electric equipment of cars	1,385 23
Renewals of tools and machinery	

Transportation Expenses:

Cost of motive power, fuel	3,736 53
Wages of persons conducting transportation	5,772 44
Removal of snow and ice	
Damages for injuries to persons and to property	

Other Transportation Expenses:

Car service expenses and supplies	170 73
Cleaning, oiling and sanding tracks	
Total operating expenses	\$16,082 12

GENERAL BALANCE SHEET, 30TH JUNE, 1912.

Assets:

Cost of Railway:

Roadbed and tracks	\$32,225 66
Electric line construction, including poles and wiring	

Total cost of railway owned

Cost of Equipment:

Cars and other rolling stock and vehicles	\$25,224 04
Cost of electric equipment of same	
Other items of equipment	
Office furniture	

Total cost equipment

Cost of Land and Buildings:

Land necessary for operation of railway	
Electric power stations, including equipment	
Other building necessary for operation of railway	\$1,013 40

Total cost of land and buildings owned

Cash	
Bills and accounts receivable	\$4,749 41
Other current assets	
Miscellaneous assets	
Material and supplies	
Profit and loss balance deficit	

Total assets

Liabilities:

Capital stock	\$25,000 00
Funded debt	

Current Liabilities:

Loans and notes payable	
Audited voucher and accounts	
Miscellaneous current liabilities	

Accrued Liabilities.

Interest accrued and not due	\$38,212 81
Profit and loss account balance surplus	

Total liabilities

Capital Stock:	
Authorized by law	\$50,000 00
Authorized by votes of company	50,000 00
Outstanding	25,000 00
Number of stock holders	

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
None				

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year.....	None.
Number carried per mile of main track operated.....	None.
Number of car miles run.....	Not given.
Average number of persons employed.....	16
Company commenced operation.....	1907

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total passenger Cars.	Equipped with Penders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars ; freight	21					
Open passenger cars ; coal dump cars ..	16					
Total	37					
Cars other service:						
Other cars (motor) locomotives (2).....						
Snow plows						

MISCELLANEOUS EQUIPMENT.

Highway vehicles.....	
Tower wagon.....	
Tip carts	

RAILWAY OWNED AND OPERATED.

	Miles.
Length of railway line computed as single track.....	2.671
Length of sidings and switches.....	2.766
	5.437

ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured
Passengers						
Employees				1	.....	1
Other persons						
Totals				1	.....	1

Corporate name of Company: Thurlow Railway Company.

Names of principal officers: President, F. P. Jones; Treasurer, H. L. Doble.

Name and address of officer to whom correspondence should be addressed: H. L. Doble, Secretary-Treasurer, Canada Cement Co., Montreal, Que.

Names and residences of Board of Directors: F. P. Jones, Montreal, Que.; H. L. Doble, Montreal, Que.; C. C. Ballantyne, Montreal, Que.; G. E. Drummond, Montreal, Que.; A. Bedford Jones, Montreal, Que.

WINDSOR & TECUMSEH ELECTRIC RAILWAY COMPANY.

FOR THE YEAR ENDING 30TH JUNE, 1912.

General Exhibit:

Gross earnings from operating
Less operating expenses

Gross income over operating expenses

Charges upon Income:

Accrued during year
Interest on funded debt
Interest on unfunded debt and loans
Taxes
Payment to municipalities for franchise

Total deduction from income

Surplus or deficit

Earnings from Operation:

From passengers carried
From mails
From advertising in cars
From other sources

Total gross earnings from operation

For details of operation, see report of the Sandwich, Windsor & Amherstburg Railway Co.

Liabilities:

Capital stock
Funded debt

Current Liabilities:

Loans and notes payable
Audited voucher and accounts
Miscellaneous current liabilities

Accrued Liabilities:

Interest accrued and not due
Profit and loss account balance surplus

Total liabilities

Capital Stock:

Authorized by law
Authorized by votes of company
Outstanding
Number of stock holders

FUNDED DEBT.

Description Bonds.	Rate Interest.	Maturity Bonds.	Amount of Bonds Outstanding.	Interest paid during year.
20-year gold.....	5%	1st Sep., 1927	\$189,000	\$9,450

VOLUME OF TRAFFIC, ETC.

Number of paying passengers carried during year	Leased and operated by The Sandwich, Windsor & Amherstburg Railway Co.
Number carried per mile of main track operated	
Number of car miles run	
Average number of persons employed.....	
Company commenced operation	

DESCRIPTION OF EQUIPMENT.

Description of Equipment.	Equipped for Electric Power.	Number Equipped.	Total Passenger Cars.	Equipped with Fenders.	Equipped with Electric Heaters.	Number of Motors.
Box passenger cars						
Open passenger cars						
Total						
Cars—Other service:						
Other cars (motor)						
Snow plows						

MISCELLANEOUS EQUIPMENT.

Highway vehicles .....	.....
Tower wagon .....	.....
Tip carts .....	.....

RAILWAY OWNED AND OPERATED.

Length of railway line computed as single track	Miles. 9.45
Length of sidings and switches .....	.....

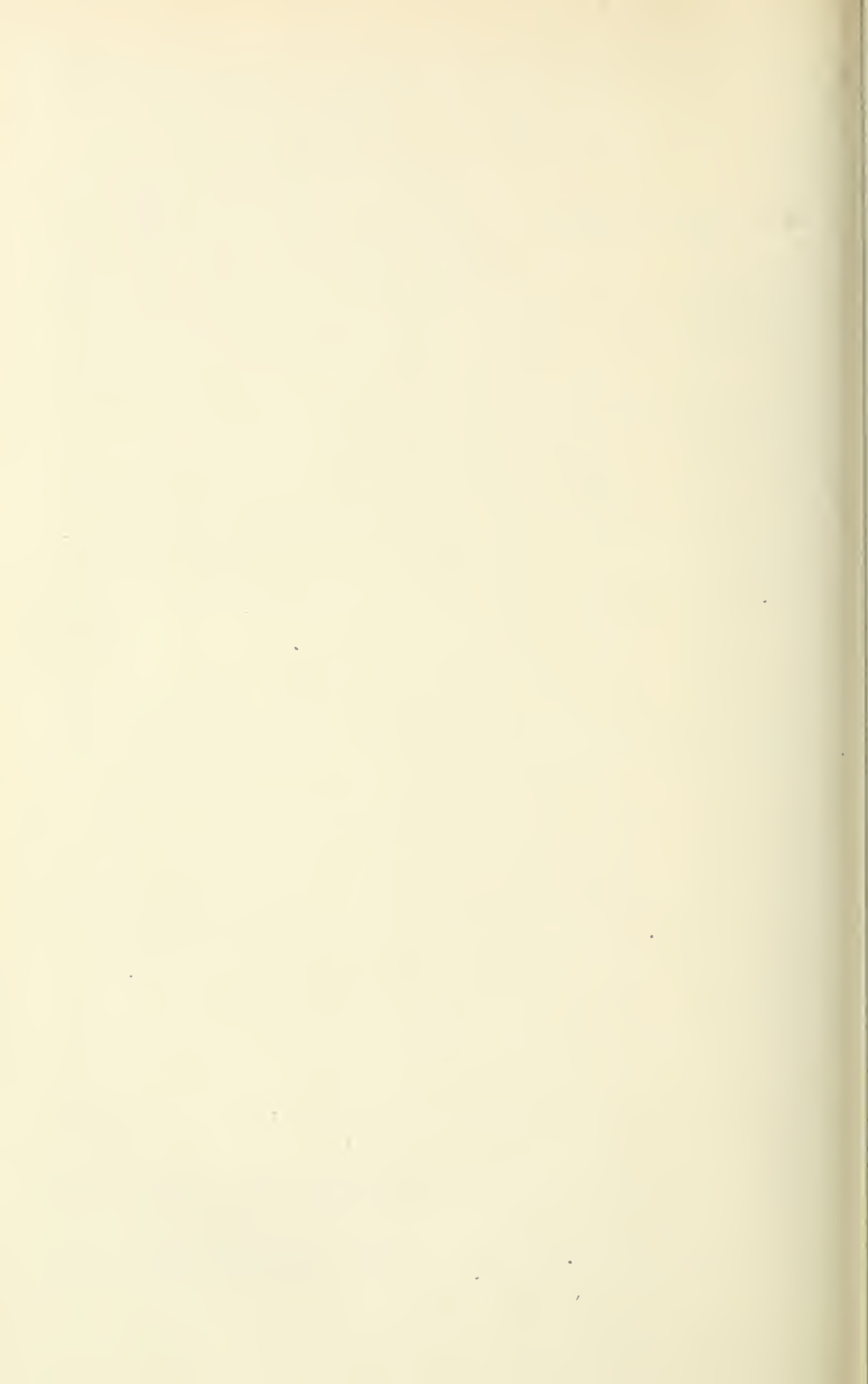
ACCIDENTS TO PERSONS.

Killed and Injured.	From causes beyond their own control.		From their own carelessness.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers						
Employees						
Other persons						
Totals						

Corporate name and address of the Company: The Windsor & Tecumseh Electric Railway Company, Windsor, Ont.

Names and business addresses of principal officers: President, Frank W. Brooks, Detroit, Mich.; Vice-President, James Anderson, Windsor, Ont.; Treasurer, Joseph Bampton, Detroit, Mich.; Clerk of Corporation, Albert E. Peters, Detroit, Mich.

Names and residences of Board of Directors: James Anderson, Windsor, Ont.; Joseph Bampton, Detroit, Mich.; Frank W. Brooks, Detroit, Mich.; Albert E. Peters, Detroit, Mich.; Pere C. Hutchins, Detroit, Mich.



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